2005

MITSUBISHI ELECTRIC

Service Manual

LCD PROJECTION HDTV

V28 CHASSIS



V28 Chassis	V28+ Chassis
WD-52527	WD-52528
WD-62527	WD-62528

Pb Solder

CAUTION:
Before servicing this chassis, it is important that the service person read the "SAFETY PRECAUTIONS" and "PRODUCT SAFETY NOTICE" contained in this manual.

SPECIFICATIONS

- **Power Input** : AC 120V, 60Hz
- **Power Usage** : 295W
- **Light Engine** : 3 LCD (1280 x 720 pixels)
- **Light Source** : 110W
- **Channel Range** : Air VHF - 2~13, UHF - 14~69
  Analog Cable - 1~25
  Digital Cable - 1~35
- **Antenna Input** : 2 RF 75Ω unbalanced
- **Tuning** : 1 NTSC/ATSC/QAM
  1 Out of Band for CableCARD™
  1 NTSC for PIP
- **Cabinet Dimensions** : [WD-52527 / WD-52528]
  34"(H) x 49.6"(w) x 17.8"(D)
  : WD-62527 / WD-62528
  40.5"(H) x 58.3"(W) x 19.9"(D)
- **Weight** : [WD-52527 / WD-52528]
  110 lbs
  : [WD-62527 / WD-62528]
  133 lbs
- **Speakers (8 Ohms 10W)**
  : 2-5 ½ x 2 ¼ inch
- **Input Level** : VIDEO IN JACK (RCA Type)
  1.0Vp-p 75W unbalanced
  : AUDIO IN JACK (RCA Type)
  -4.7dBm 43kW unbalanced
  : S-VIDEO IN JACK
  (Y/C separate type)
  Y:1.0 Vp-p C:0.286Vp-p(BURST)
  75W unbalanced
  : COMP / Y, Cr, Cb (RCA Type)
  Y: 1.0 Vp-p Cr, Cb: 700mVp-p
- **Output Level** : VIDEO OUT JACK (RCA Type)
  1.0Vp-p 75W unbalanced
  : AUDIO OUT JACK (RCA Type)
  -4.7dBm 4.7kW unbalanced
- **Digital** : IEEE-1394 I/O Jacks
  : AC-3 Digital Audio Output
  (RCA Type)
  : HDMI™
- Pb Solder : Lead-Free solder PWBs

- Design specifications are subject to change without notice.

MITSUBISHI DIGITAL ELECTRONICS AMERICA, INC.

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CONTENTS

INTRODUCTION

This service manual provides service instructions for LCD Projection TV Models and Chassis:

V28 Chassis	V28+ Chassis
WD-52527	**WD-52528**
WD-62527	**WD-62528**

This service manual includes:

1. Assembly and disassembly instructions for the front and rear cabinet components.
2. Servicing of the Lenticular Screen and Fresnel Lens.
3. Servicing down to major components, chassis, PWBs, Light Engine, Lamp Ballast, etc..
4. Electrical adjustments.
5. Optical Adjustments.
6. Lead Free Soldering.
7. Chip parts replacement procedures.
8. Simplified circuit path diagrams.

The parts list section of this service manual includes:

1. Cabinet and screen parts.
2. Electrical parts.

Block diagrams of the above listed models are included in this service manual for better understanding of the circuitry.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in television receivers have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have special safety characteristics are identified in this service manual.

Electrical components having such features are identified by shading on the schematic diagram and by bold type in the parts list of this service manual. **Therefore, the replacement for any safety part should be identical in value and characteristics.**

Pb Solder

The PWBs used in the V28 and V28+ chassis are constructed using Lead-Free solder. **When servicing use only recommended Lead-Free solder (refer to page 37).**

SAFETY PRECAUTIONS

NOTICE: Observe all cautions and safety related notes located inside the receiver cabinet and on the receiver chassis.

WARNING:

1. Operation of this receiver outside the cabinet or with the cover removed presents a shock hazard from the receiver's power supplies. Work on the receiver should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment.
2. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage area. Where a short-circuit has occurred, replace those components that indicate evidence of overheating.

WARNING ... RISK OF EYE INJURY
Do not look into the light source, lens or mirror when operating the TV

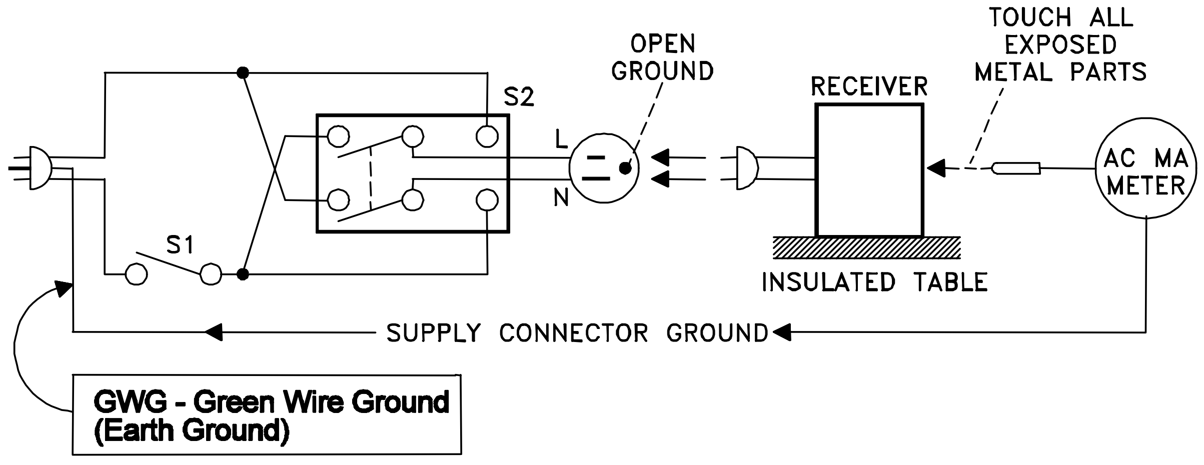
Leakage current check
Before returning the receiver to the customer, it is recommended that leakage current be measured according to the following methods.

1. Cold Check

With the alternating current (AC) plug removed from the AC source, place a jumper across the two AC plug prongs. Connect one lead of an ohm meter to the AC plug and touch the other lead to each exposed metal part (i.e. antennas, handle bracket, metal cabinet, screw heads, metal overlay, control shafts, etc.), particularly any exposed metal part that has a return path to the chassis. The resistance of the exposed metal parts having a return path to the chassis **should be a minimum of 1Meg Ohm**. Any resistance below this value indicates an abnormal condition and requires corrective action.

2. Hot Check ...Use the circuit shown below to perform the hot check test.

1. Keep switch S1 open and connect the receiver to the measuring circuit. Immediately after connection, and with the switching devices of the receiver in their operating positions, measure the leakage current for both positions of switch S2.
2. Close switch S1, energizing the receiver. Immediately after closing switch S1, and with the switching devices of the receiver in their operating positions, measure the leakage current for both positions of switch S2. Repeat the current measurements of items 1 and 2 after the receiver has reached thermal stabilization. **The leakage current must not exceed 0.5 milliampere (mA).**



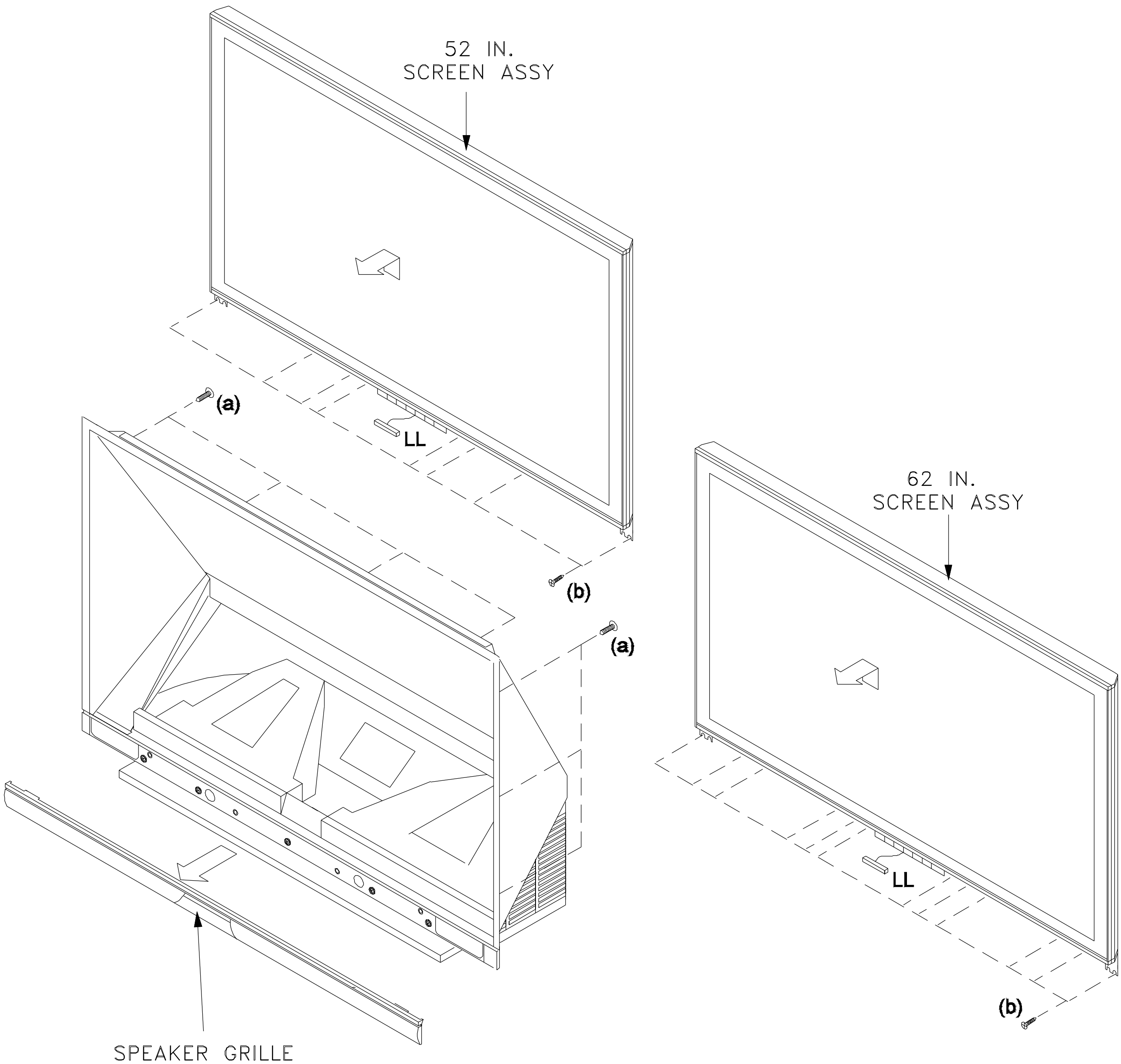
CABINET FRONT DISASSEMBLY

SPEAKER GRILLE Removal

Pull the SPEAKER-GRILLE away from the cabinet to remove.

SCREEN-ASSY Removal

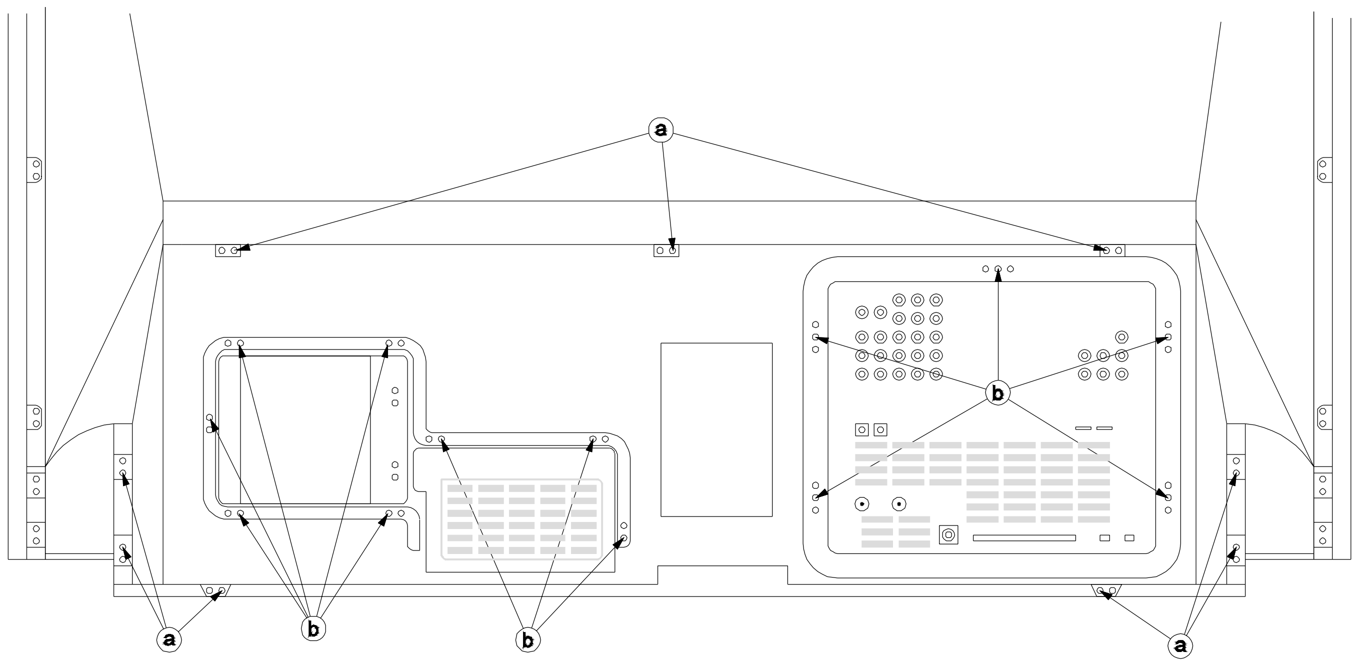
1) Remove 10 screws (a) from the upper cabinet rear cover (3 screws on each side and 4 screws across the top).
2) Remove screws (b) along the bottom of the SCREEN-ASSY (8 screws on 52 inch models, and 12 screws on 62 inch models),
3) Unplug the LL connector to the front CONTROL-PANEL.
4) Lift the SCREEN-ASSY up slightly and then pull away from the cabinet.



CHASSIS REMOVAL

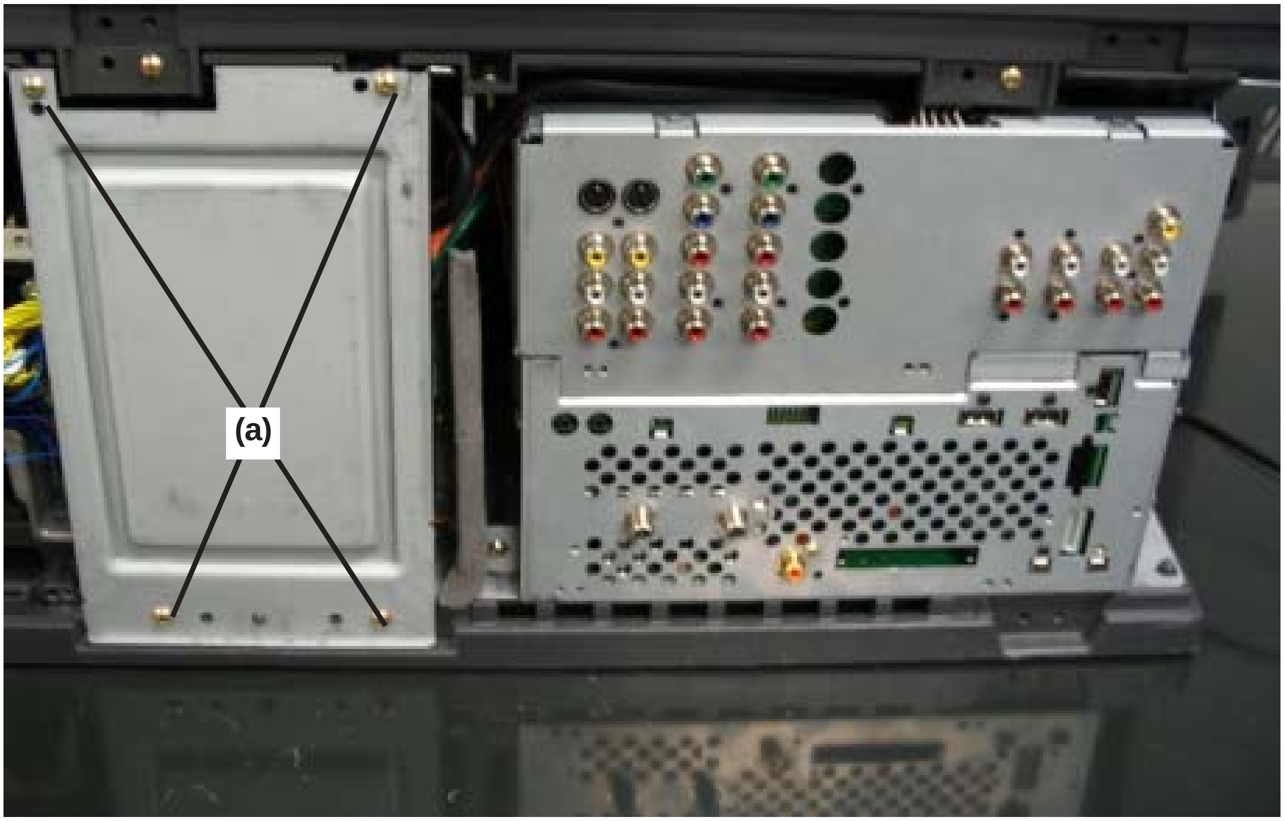
BACK-COVER Removal

1) Remove 9 screws (a)
2) Remove 13 screws (b)
3) Pull the COVER-BACK from the cabinet.



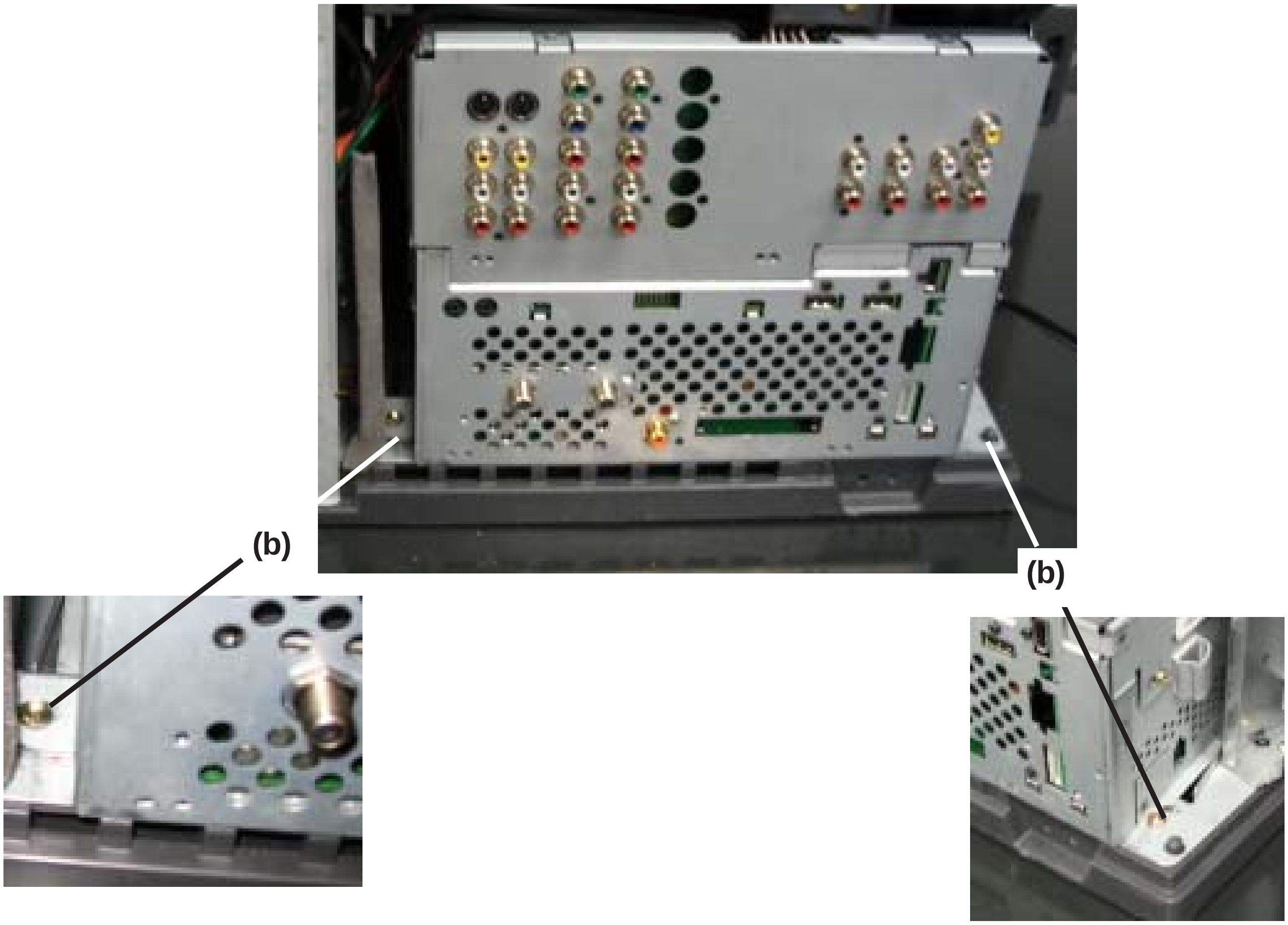
Metal Support Plate Removal

Remove 4 screws (a) to remove the metal support plate,

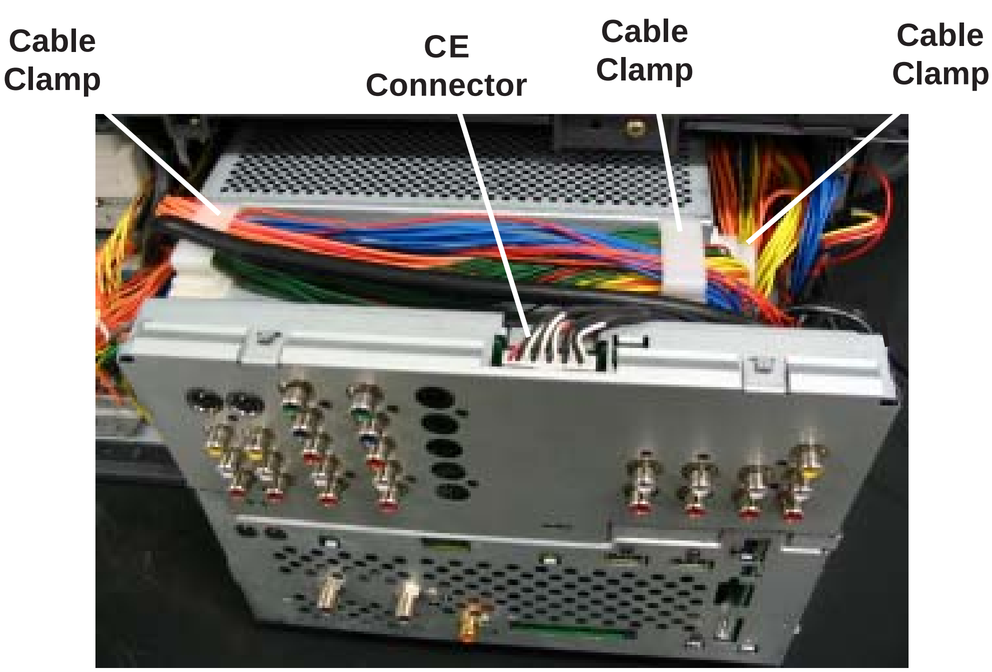


Chassis Mounting Screws Removal

Remove the two chassis mounting screws (b).



Release Cable Clamps & Disconnect CE Connector

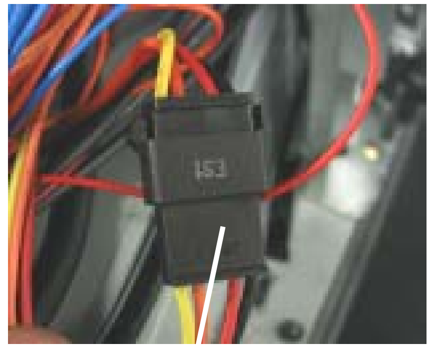


On the right side of the chassis (from the rear):

1) Release the AC Cord from it's mounting.
2) Unplug ES1 connector to the speakers.



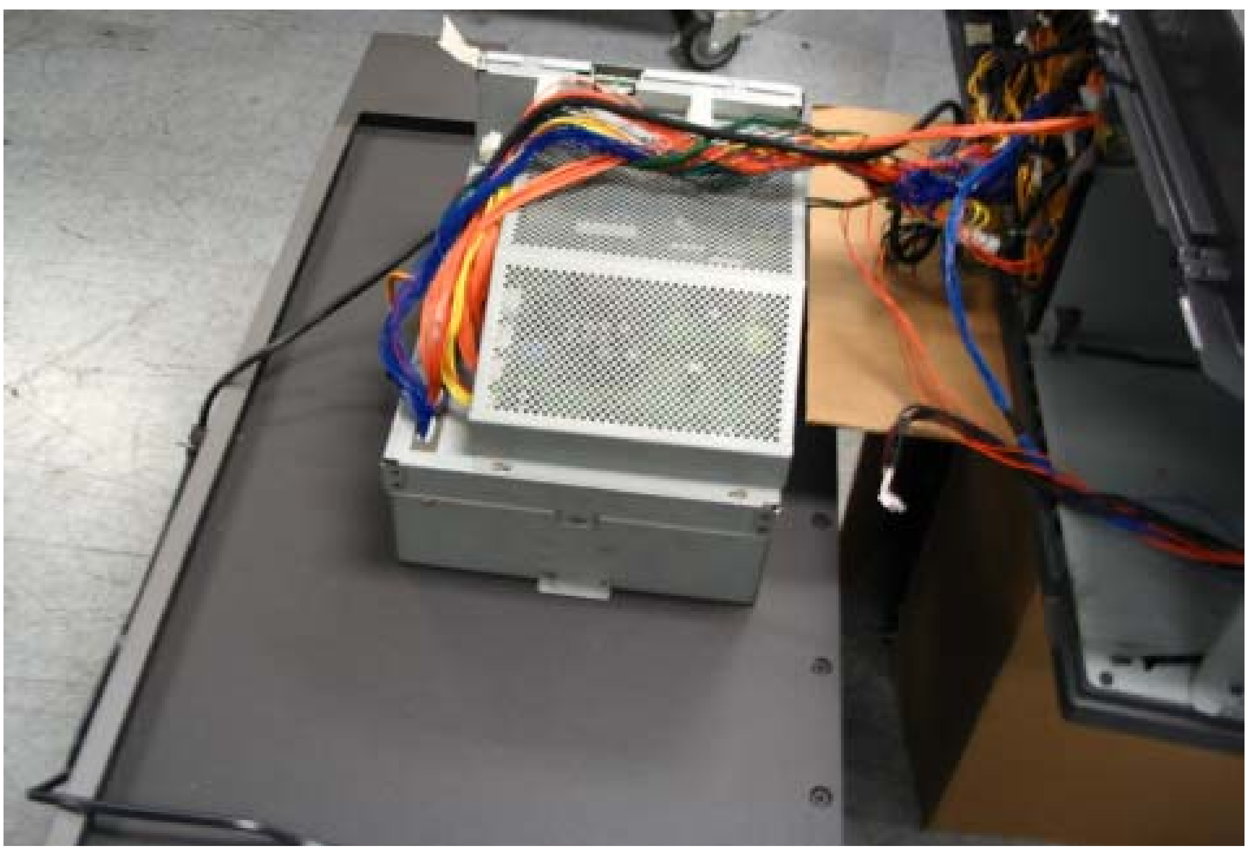
AC Cord



ES1 Connector

Chassis removal from the Cabinet

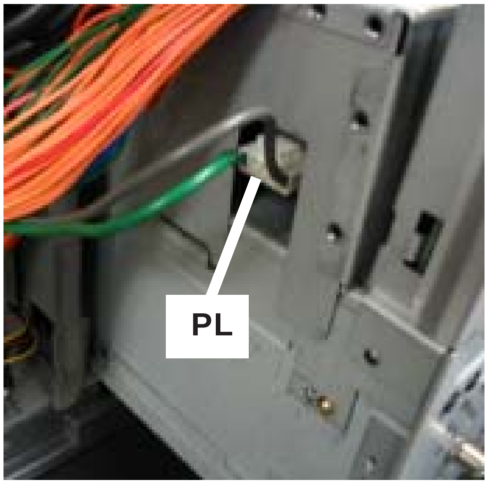
Carefully rotate the chassis clockwise to slide it from the cabinet.

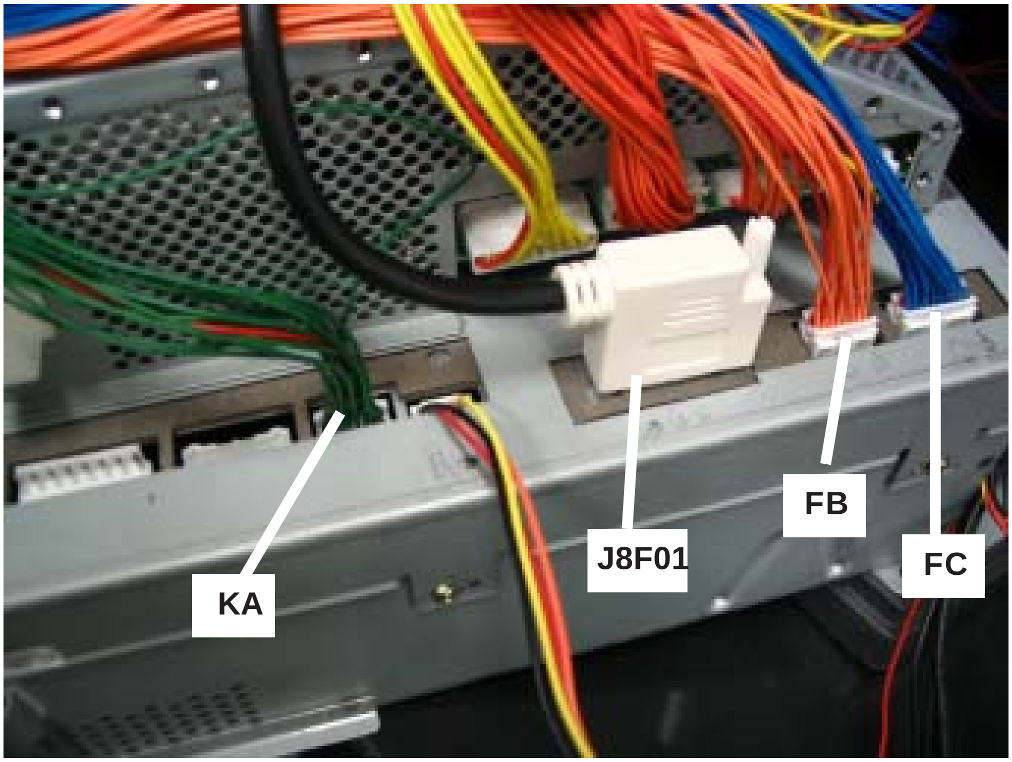


Complete Chassis Removal

To completely remove the chassis from the cabinet, the folowing connectors must be unplugged.

- PL plug to the Ballast (on the left side of the chassis).
- KA plug from the PWB-RISER (right side of chassis).
- FB, FC and J8F01 at the PWB-FORMAT (right side of chassis).

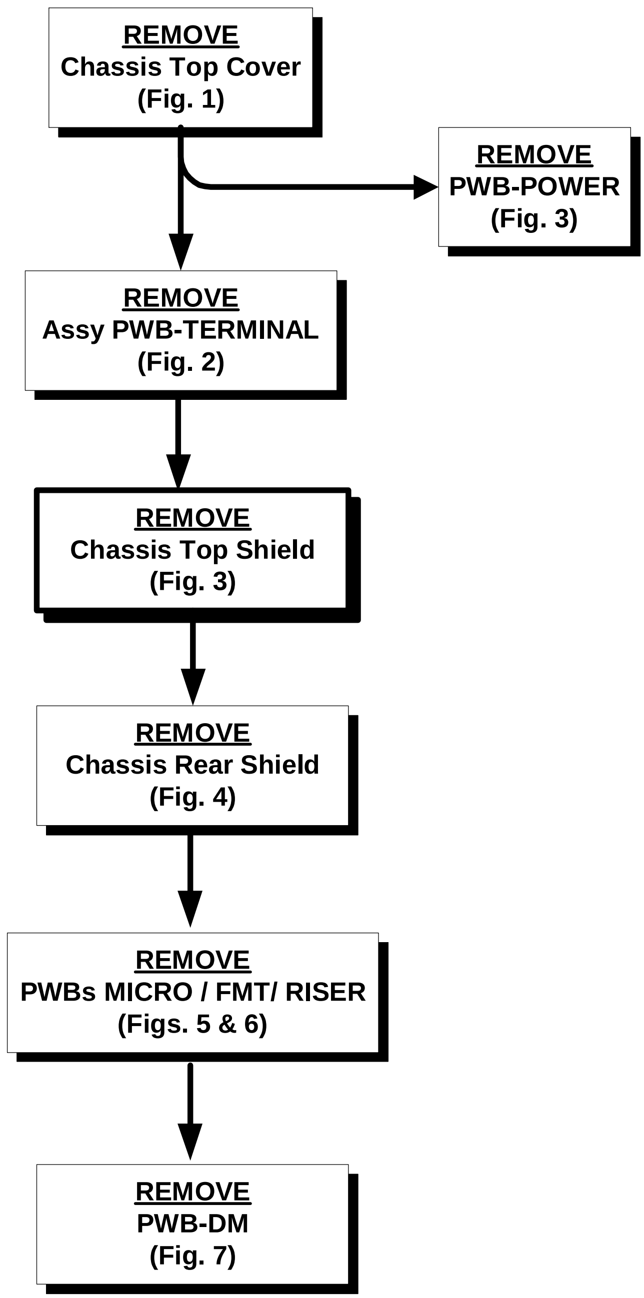




Chassis Disassembly / Accessing PWBs

Note: Although not individually indicated, unplug the required connectors in each disassembly step.

Chassis Sequence of Disassembly



Chassis Cover Removal *(Figure 1)*

1) Remove the 4 screws (a).
2) Lift the Cover from the chassis.

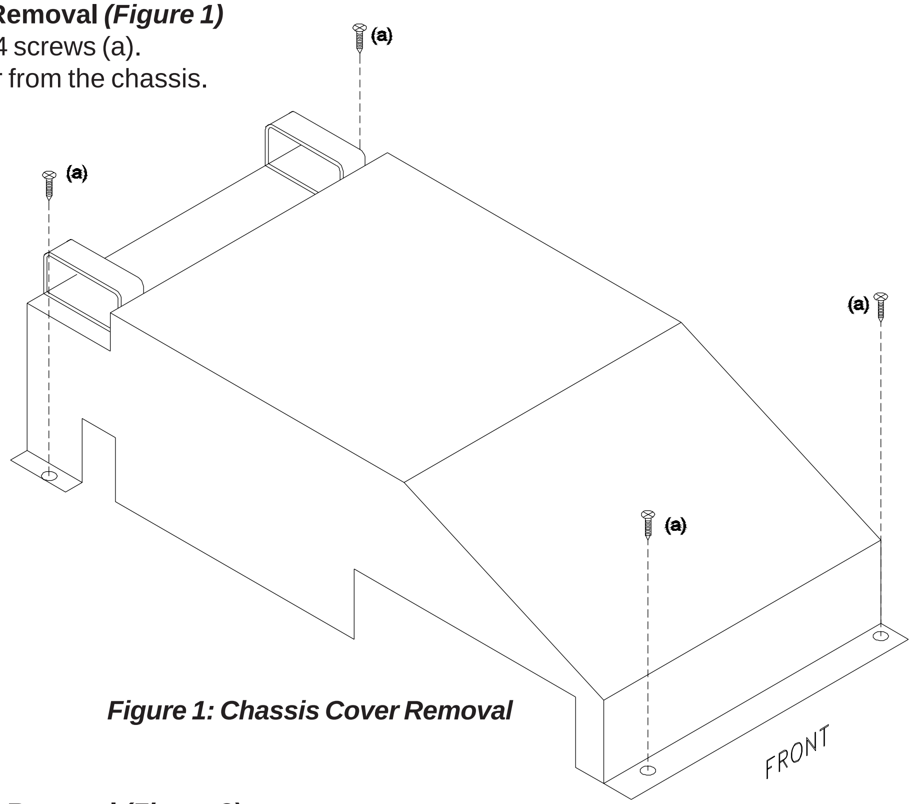


Figure 1: Chassis Cover Removal

Assy PWB- TERMINAL Removal *(Figure 2)*

1) Remove 7 screws (a) to remove the TERMINAL-INLAY.
2) Remove 3 screws (b) to remove the Assy PWB-TERMINAL.

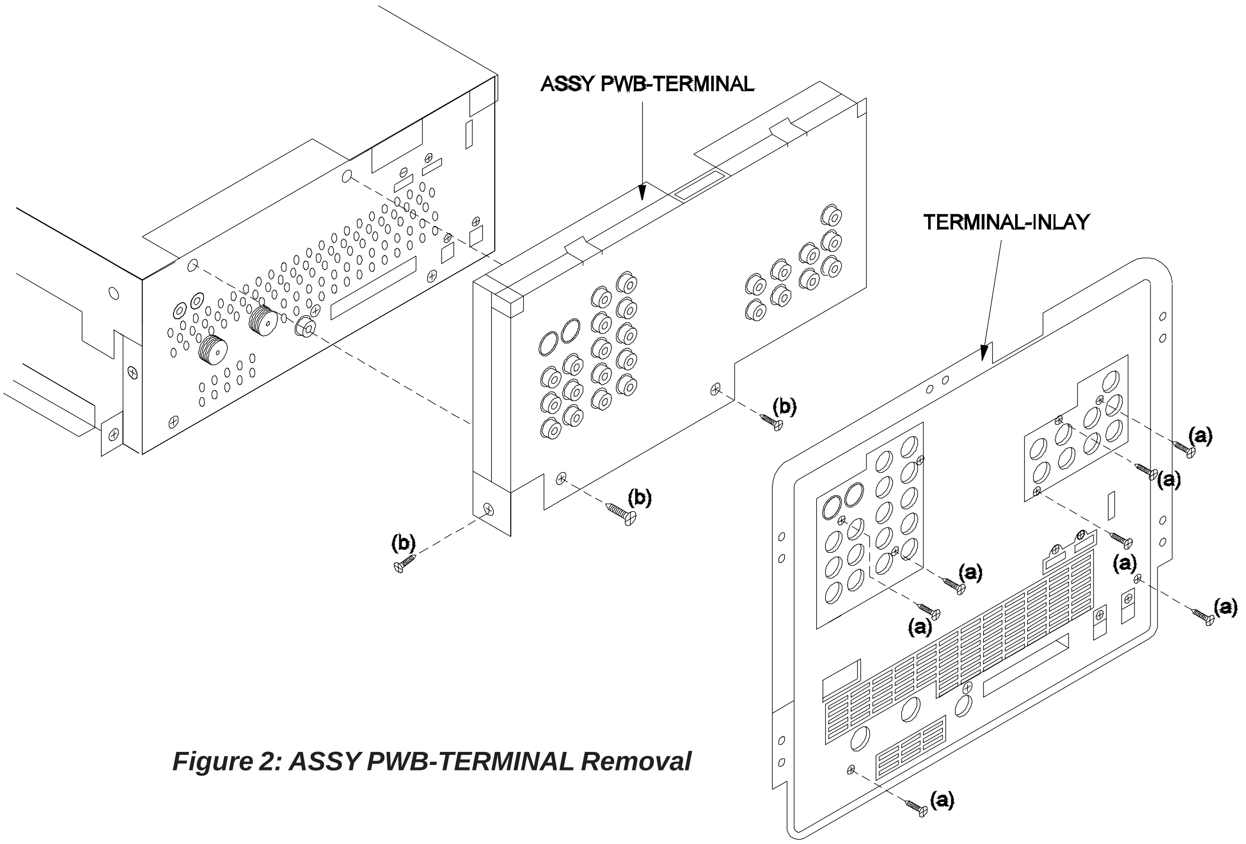


Figure 2: ASSY PWB-TERMINAL Removal

PWB-POWER Removal *(Figure 3)*

1) Remove four screws (b).
2) Disconnect all connectors to PWB-POWER.
3) Lift PWB-POWER from the chassis.

Chassis Upper Shield Removal *(Figure 3)*

1) Remove seven screws (c).
2) Lift the Shield from the chassis.

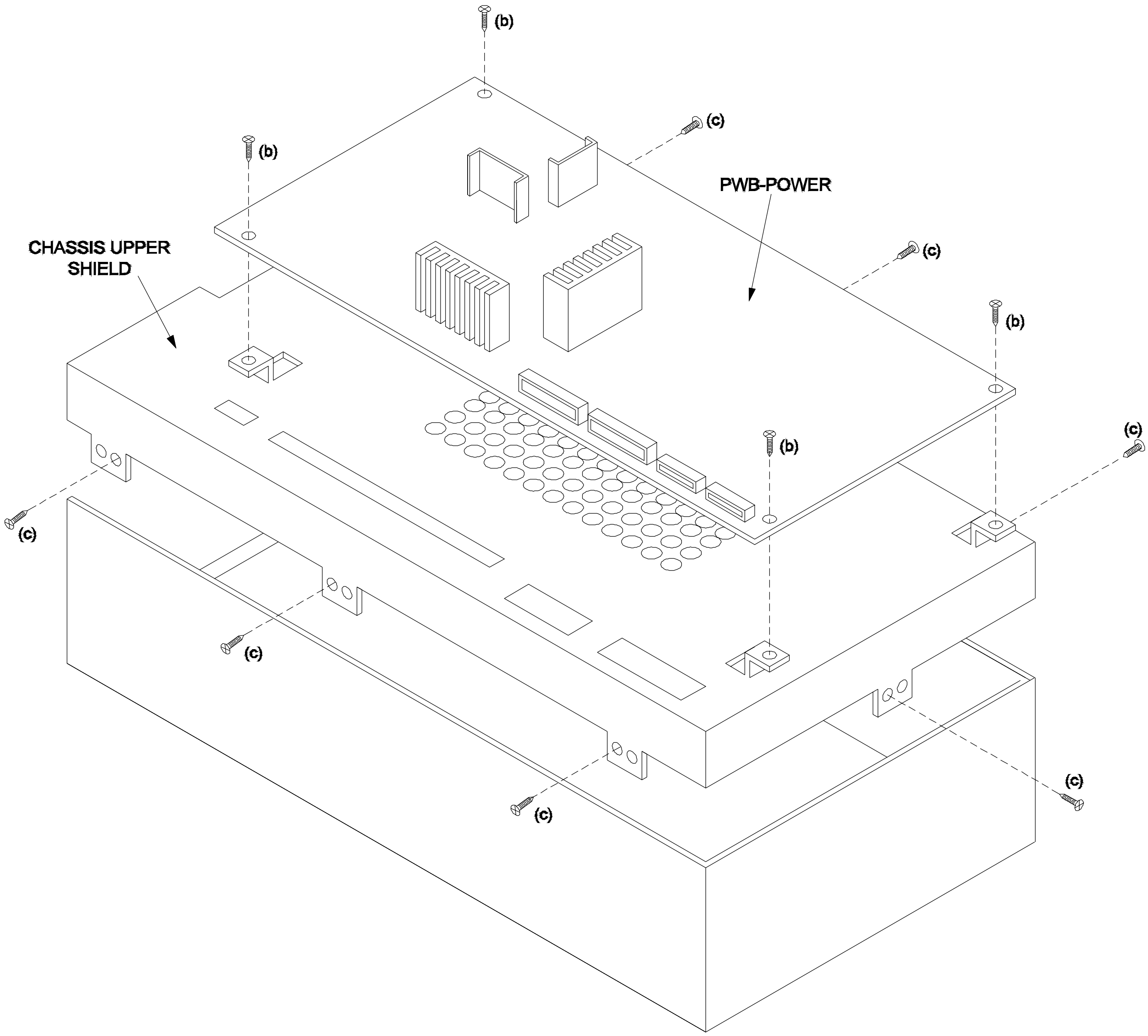
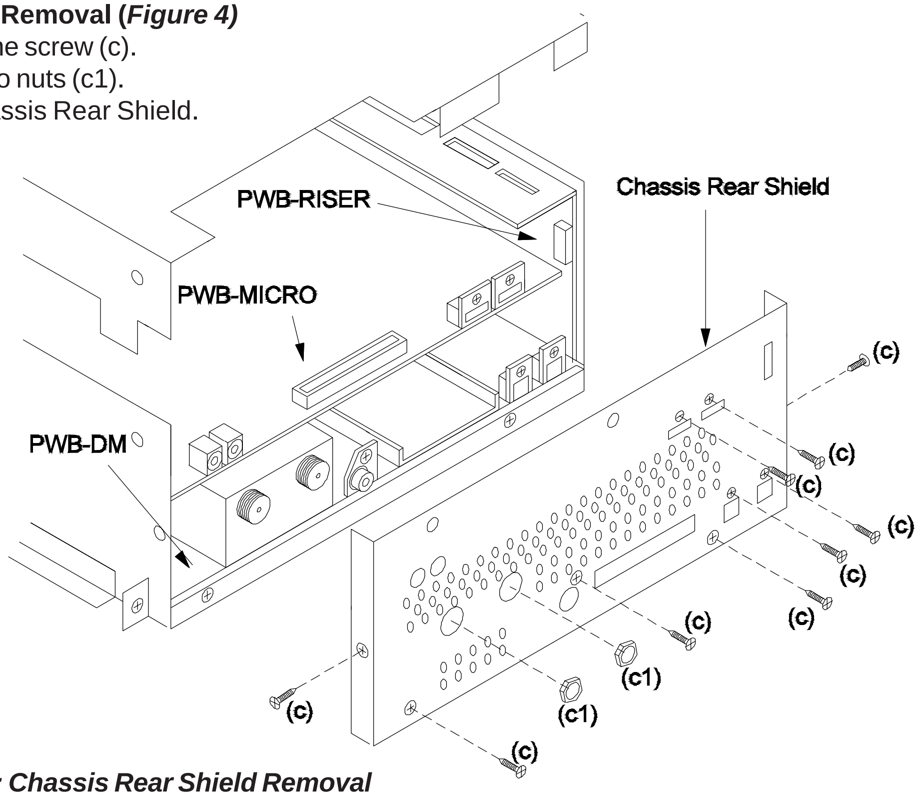


Figure 3: PWB-POWER and Chassis Upper Shield

Chassis Rear Shield Removal (*Figure 4)*

1) Remove nine screw (c).
2) Remove two nuts (c1).
3) Pull off Chassis Rear Shield.



Fi*gure 4: Chassis Rear Shield Removal*

PWB-MICRO Removal
Referring to *Figure 5.*

1) Remove three screws (d).
2) Unplug PWB-MICRO from PWB-RISER and remove from the chassis.

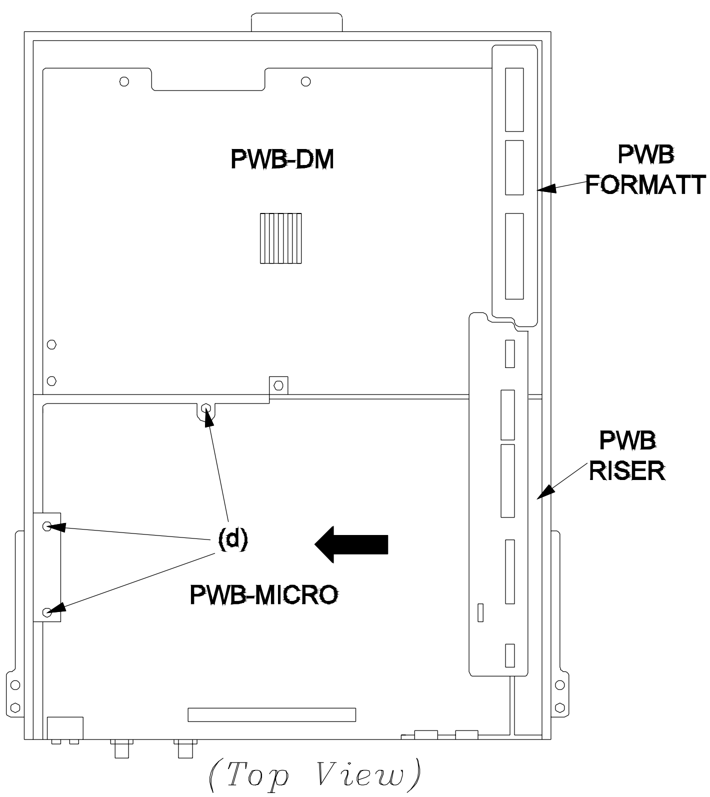


Figure 5: PWB-MICRO Mounting Screws

PWB-RISER and PWB-FORMAT Removal
Referring to *Figure 6.*

1) Remove one screw (e).
2) Unplug and remove PWBs MICRO, RISER and FORMAT.

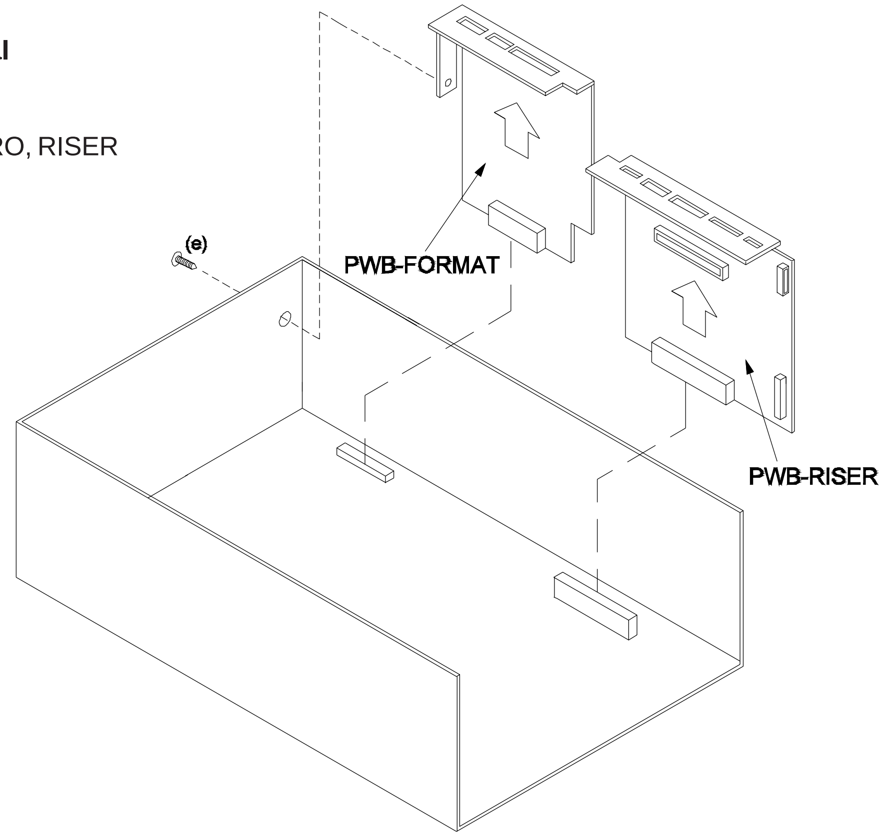


Figure 6: PWBs MICRO, RISER and FORMAT Removal

PWB-DM Removal (*Figure 7)*

1) Remove three screws (g) holding the PWB-MICRO Support Bracket.
2) Remove the Support Bracket.
3) Remove the five screws (h).
4) Remove the PWB-DM from the chassis.

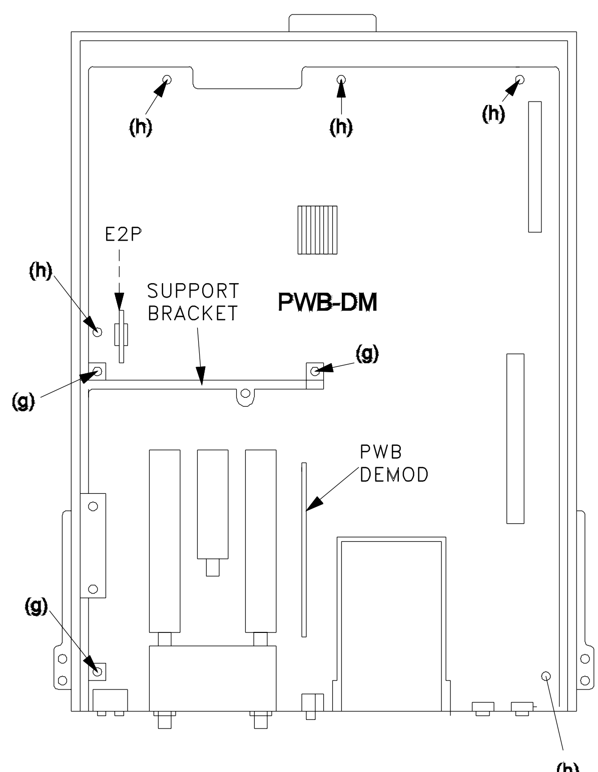
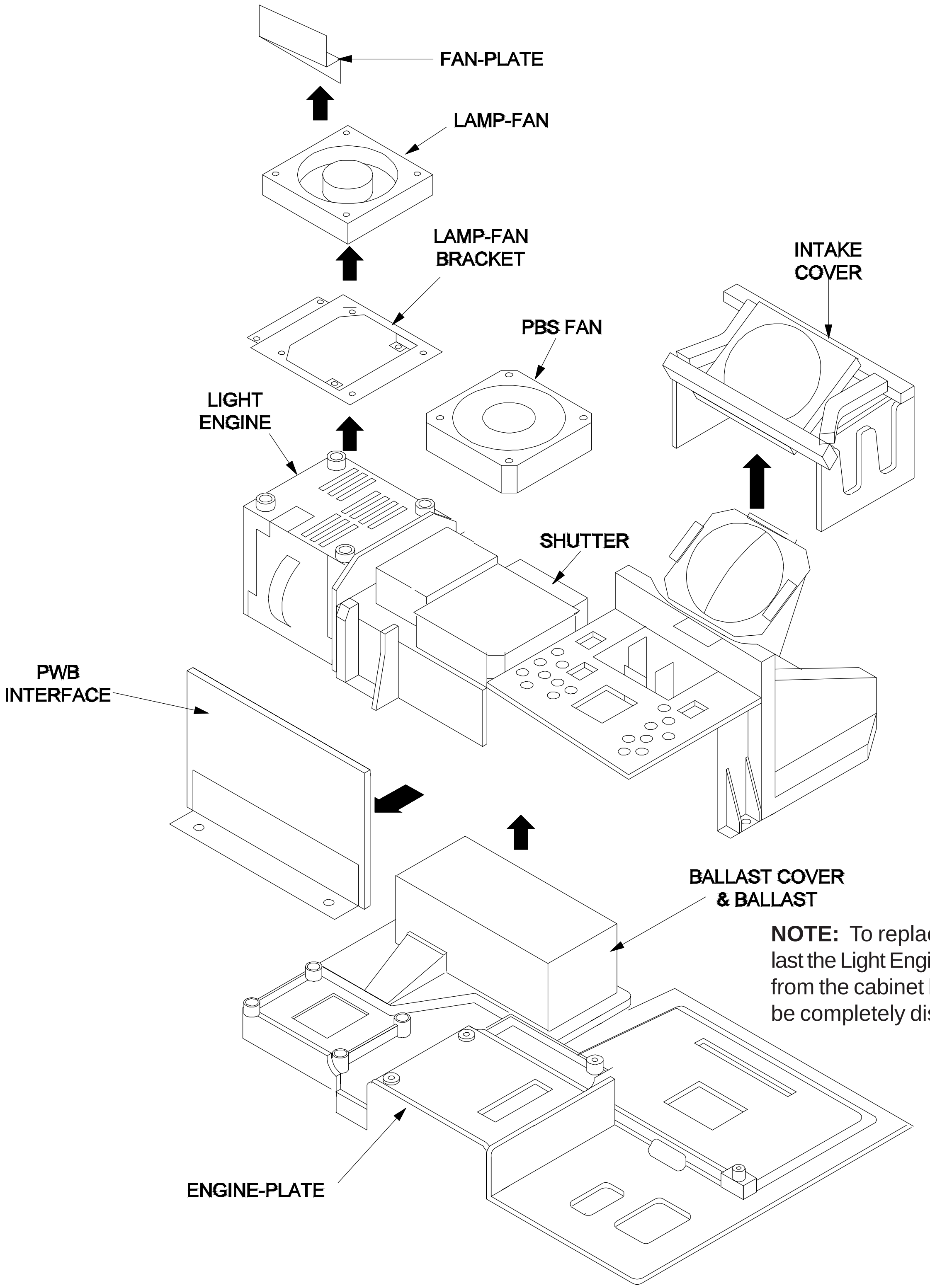


Figure 7: PWB-DM Removal

Light Engine Replacement

Light Engine and Associated Components

The exploded view below shows the the Light Engine and those components attached directly to the Engine. When replacing the Light Engine, these components must be removed from the original Light Engine.



NOTE: To replace the Lamp Ballast the Light Engine must be removed from the cabinet but doesn't need be completely disassembled.

Light Engine Replacement

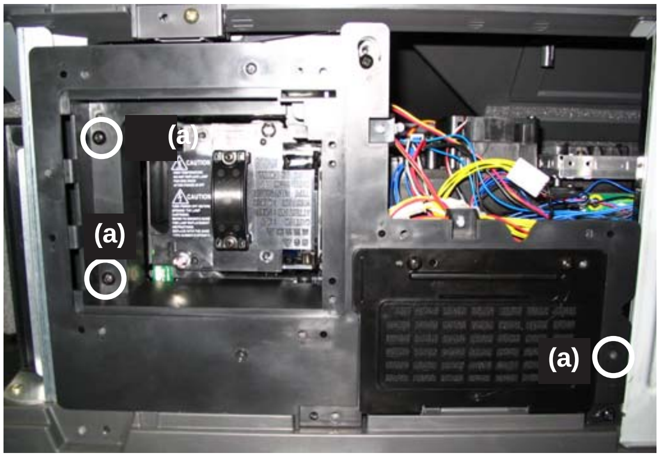
Preliminary

Refer to the chassis removal procedure and remove the BACK-COVER and Metal Support Plate (page 8)

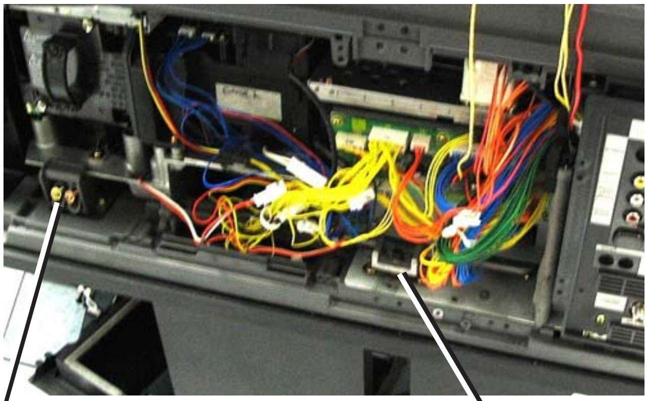
Light Engine Removal Procedure

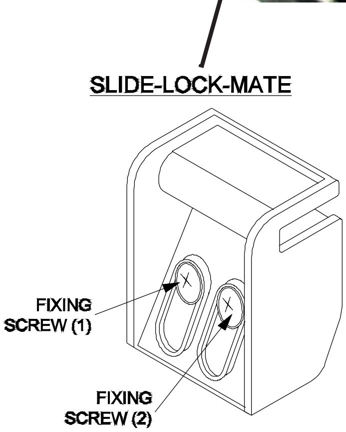
The following steps describe how to remove the Light Engine from the cabinet and those parts that are not included in a replacement Engine

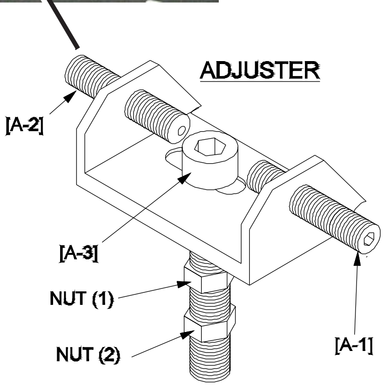
1) Remove (3) screws (a) from Filter Cover Holder



Light Engine (Rear View)





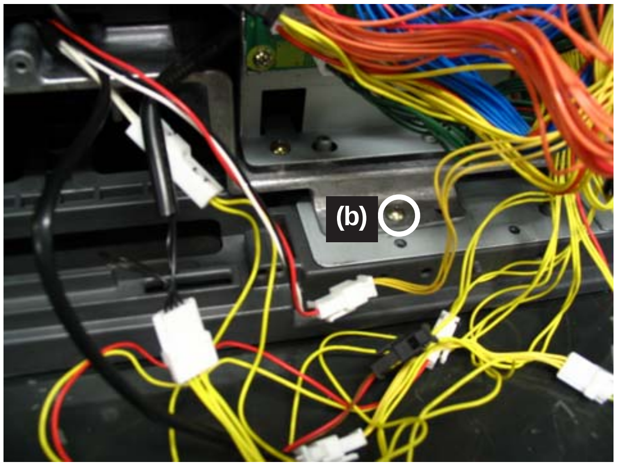


2) Remove fixing screws (1) & (2) to remove the SLIDE-LOCK-MATE

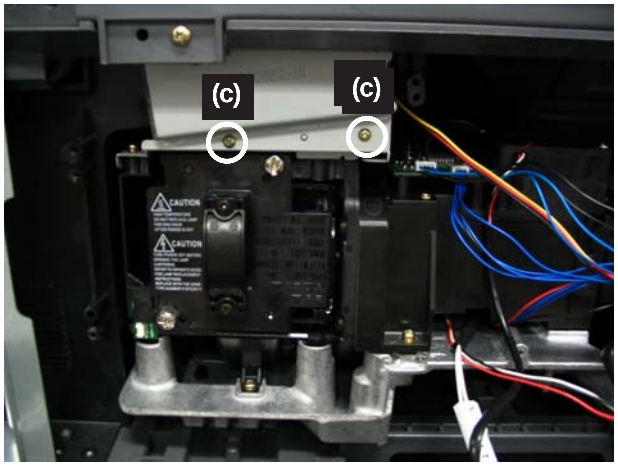
3a) Loosen [A-1] & [A-2] so that they do not touch [A-3]. (4MM Allen wrench)
3b) Loosen lock nuts (1) and (2). (8MM open end wrench)
3c) Turn [A-3] CCW so the [A-3] bolt clears the Engine Plate. (5MM Allen wrench)

Light Engine Replacement

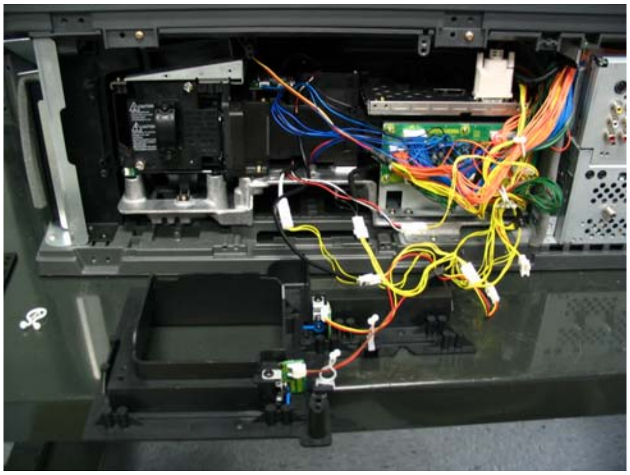
4) Remove one screw (b) securing engine plate and base



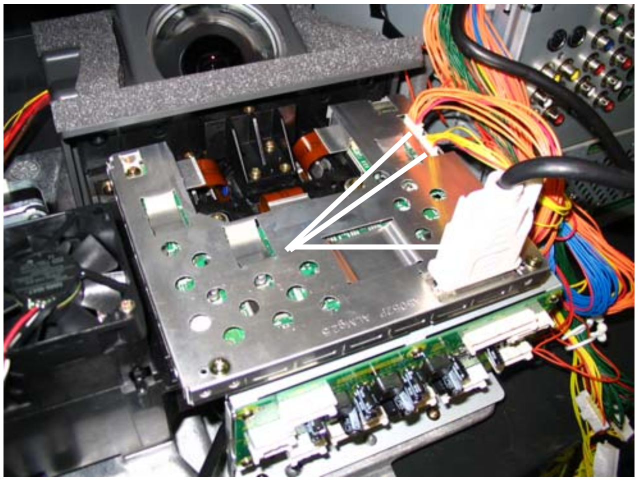
5) Remove two screws (c) from Fan Plate and remove Fan Plate



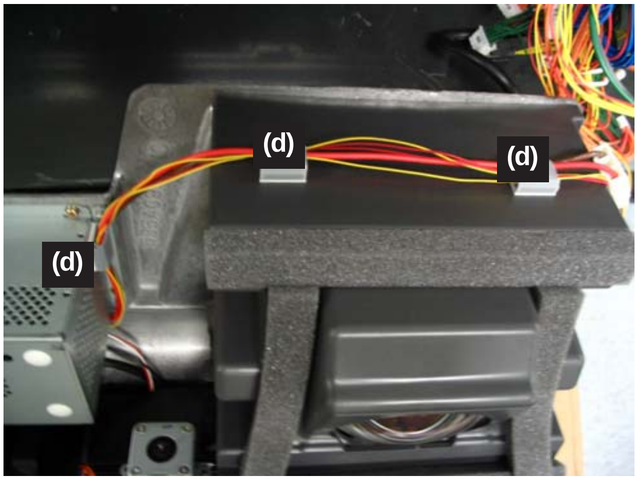
6) Disconnect all connectors



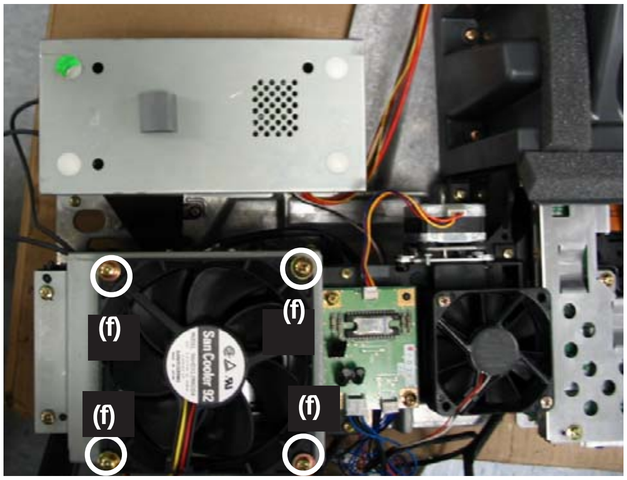
7) Remove DVI cable and (2) connectors



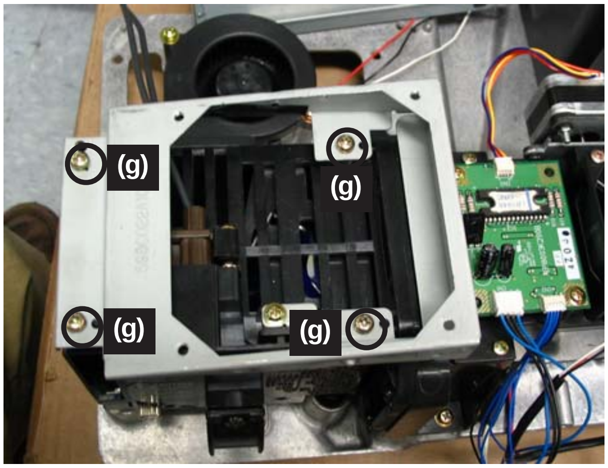
8) Remove wiring from three wiring clamps (d).



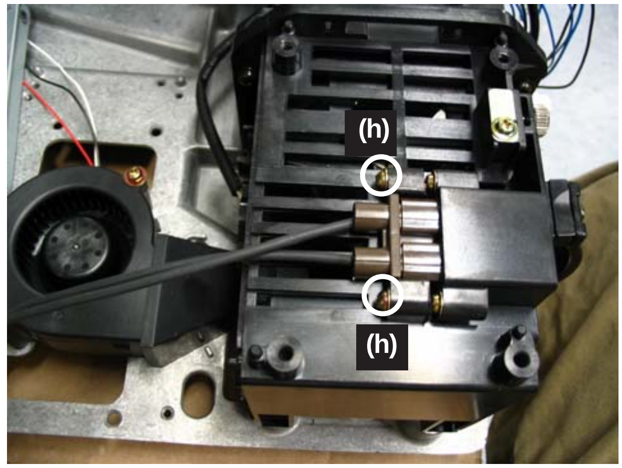
9) Remove 4 screws (f) from the Lamp Fan.



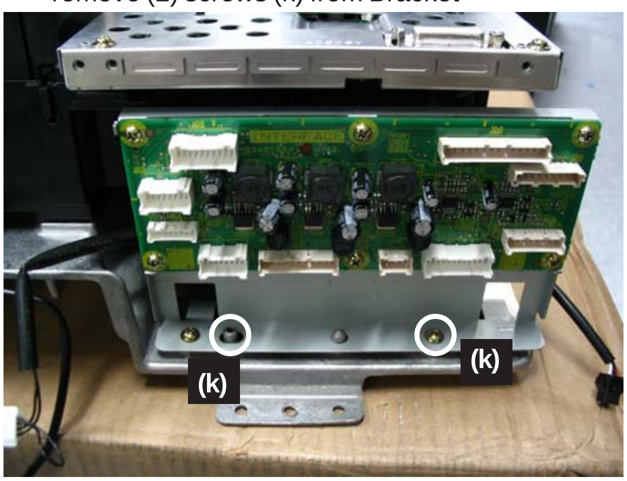
10) Remove (4) screws (g) from Lamp Fan Bracket



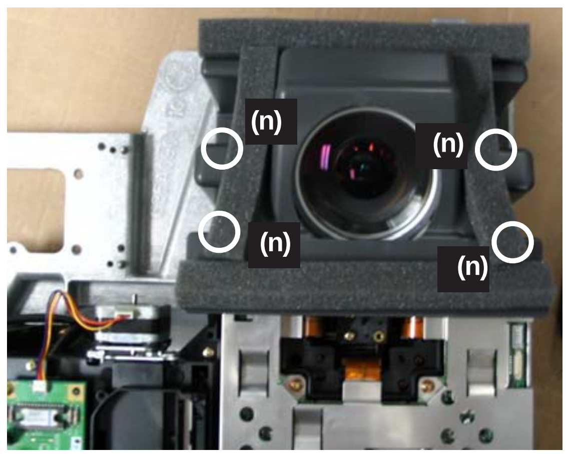
11 Loosen (2) screws (h) to remove Ballast Cable



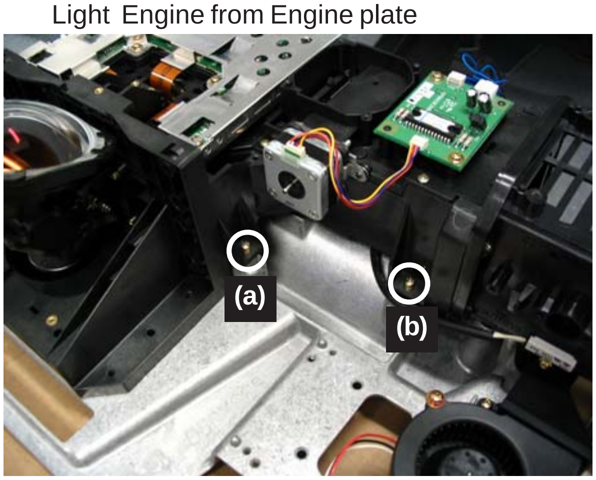
12) Disconnect all connectors from Interface PWB and remove (2) screws (k) from Bracket



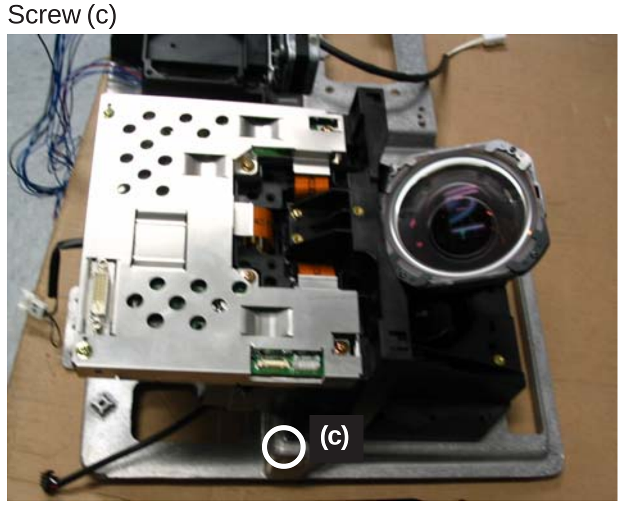
13) Remove (4) screws (n) from Intake Cover



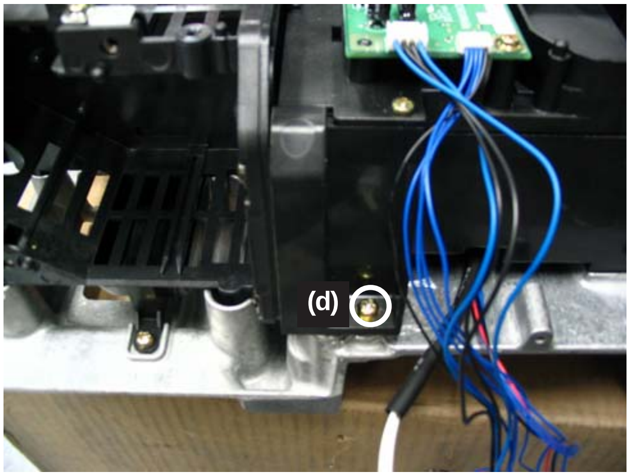
14) Remove four screws (a), (b), (c) and (d) to separate Light Engine from Engine plate



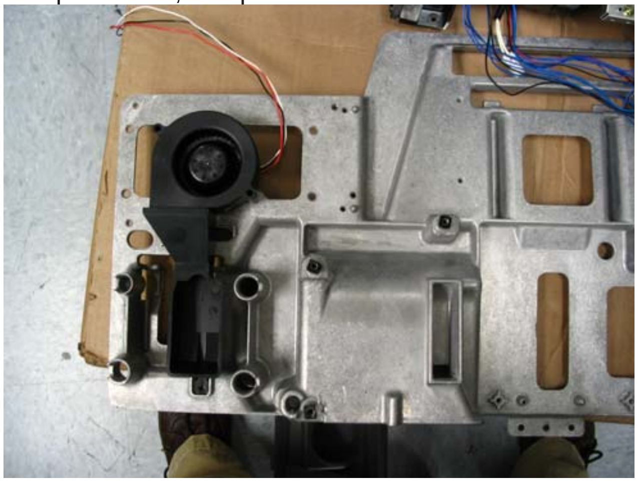
Screw (c)



Screw (d)



15) Lift the Engine from Engine plate leaving the Lamp Duct fan, Lamp Duct Intake and Ballast.



INSTALLATION

1) Reverse the above steps.
2) Copy White Balance Data to PWB-FMT (refer to page 29).
3) Refer to the Adjustment Section and perform Trapezodial Distortion, Rotation and Position adjustments as necessary.

SERVICING THE LENTICULAR SCREEN AND FRESNEL LENS

CAUTION: **Wear gloves** when handling the Lenticular Screen and Fresnel Lens. This prevents cuts and finger prints. **Do not place Fresnel Lens in the sun**. This may cause fire and heat related injuries.

Lenticular Screen and Fresnel Lens Removal

1. Remove the screen assembly as shown in the Cabinet Disassembly procedure.
2. Remove the four screws (a) to remove the bottom of the SCREEN-FRAME-BOTTOM . *(Figure 1)*
3. From the front of the screen assembly, slide the BEZEL out the bottom of the Screen Frame. (*Figure 2)*
4. From the rear of the screen assembly, carefully slide the Lenticular Screen and Fresnel Lens combination from the Screen Frame. (*Figure 3)*

   Note: When separating the Lenticular Screen from the Fresnel Lens, use caution while prying the Screen and Lens apart. Use a slot type screw driver, and remove the pressure sensitive double sided tape.

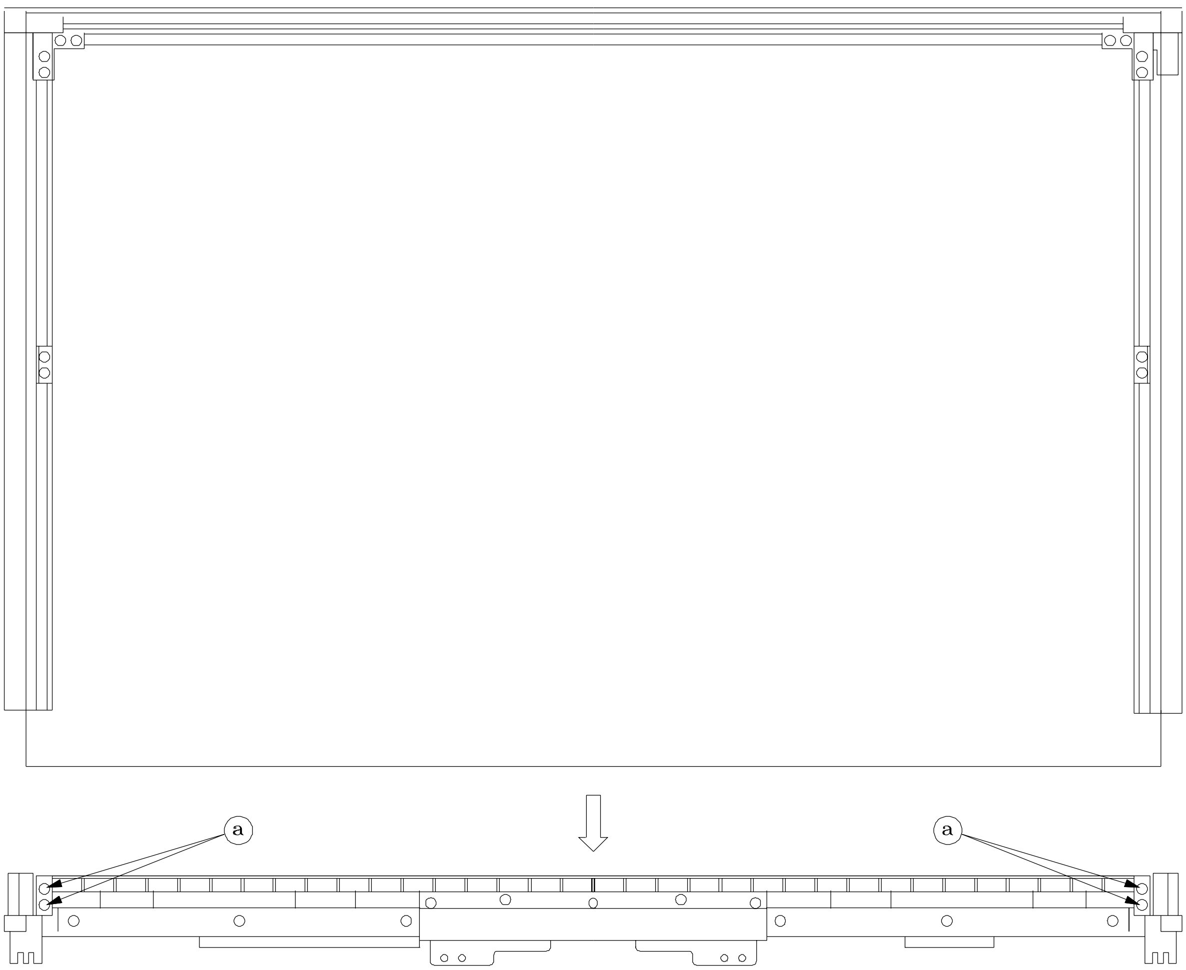


Figure 1: SCREEN-FRAME-BOTTOM Removal (Rear View)

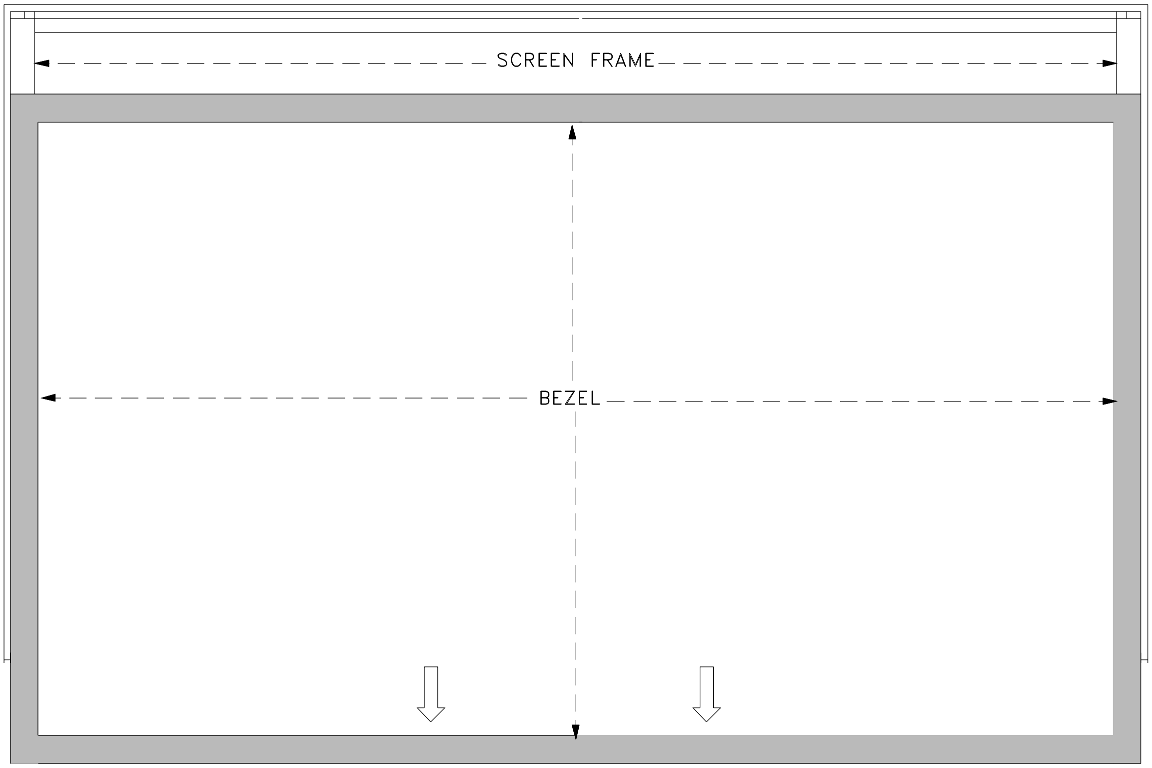


Figure 2: BEZEL Removal (Front View)

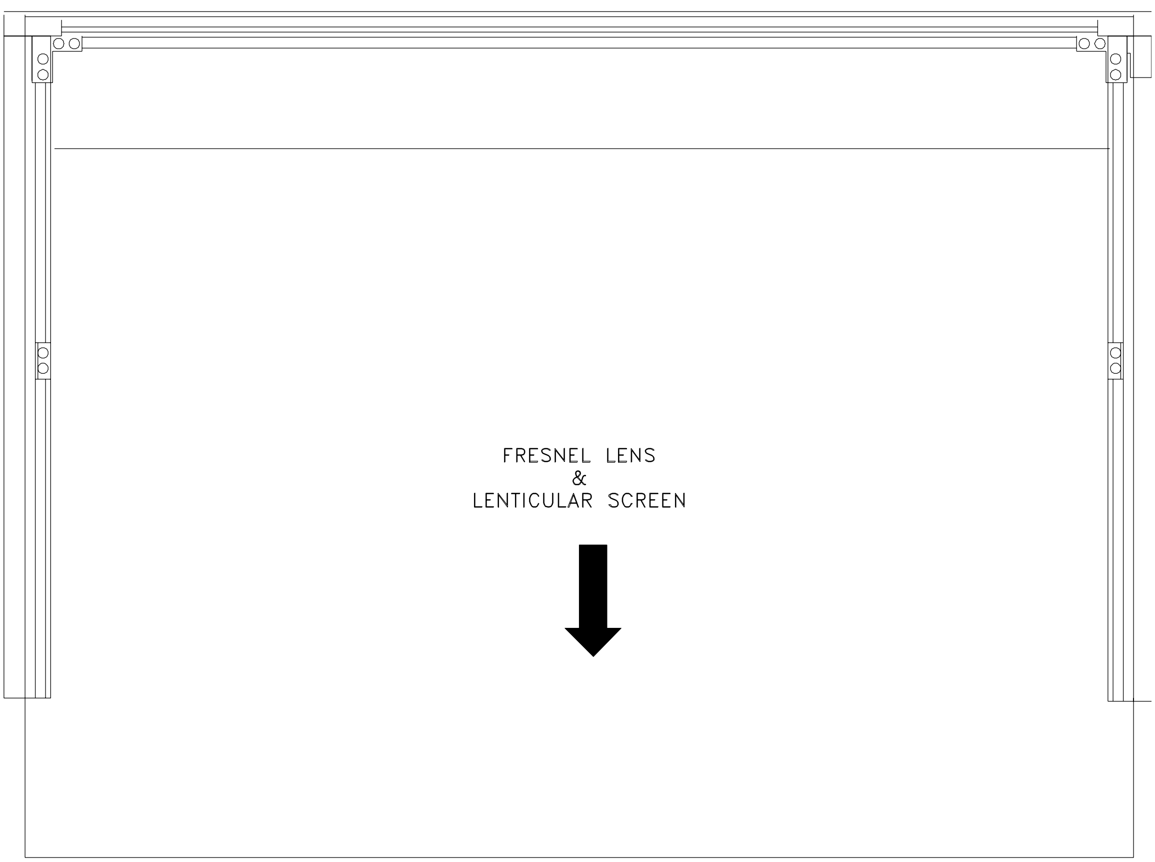


Figure 3: Lenticular Screen & Fresnel Lens Removal (Rear View)

SERVICING THE LENTICULAR SCREEN AND FRESNEL LENS

Lenticular Screen and Fresnel Lens Installation

Note: Store the Lenticular Screen and Fresnel Lens in a cool dry place. High humidity may deform the Lenticular Screen and Fresnel Lens.

1. Apply double coated tape (Part #LENS-TAPE) along the top rear edge of the Lenticular Screen, as shown below. Refer to the table below for the tape length.
2. Sandwich the Fresnel Lens and Lenticular Screen together. The Lenticular Screen label must be towards the front and the Fresnel Lens label towards the rear. *(Figure 4)*
3. Apply pressure at the top edge to bond the screens together.
4. Reverse the Screen Removal procedure and insert the screens in the Screen Frame Assembly.

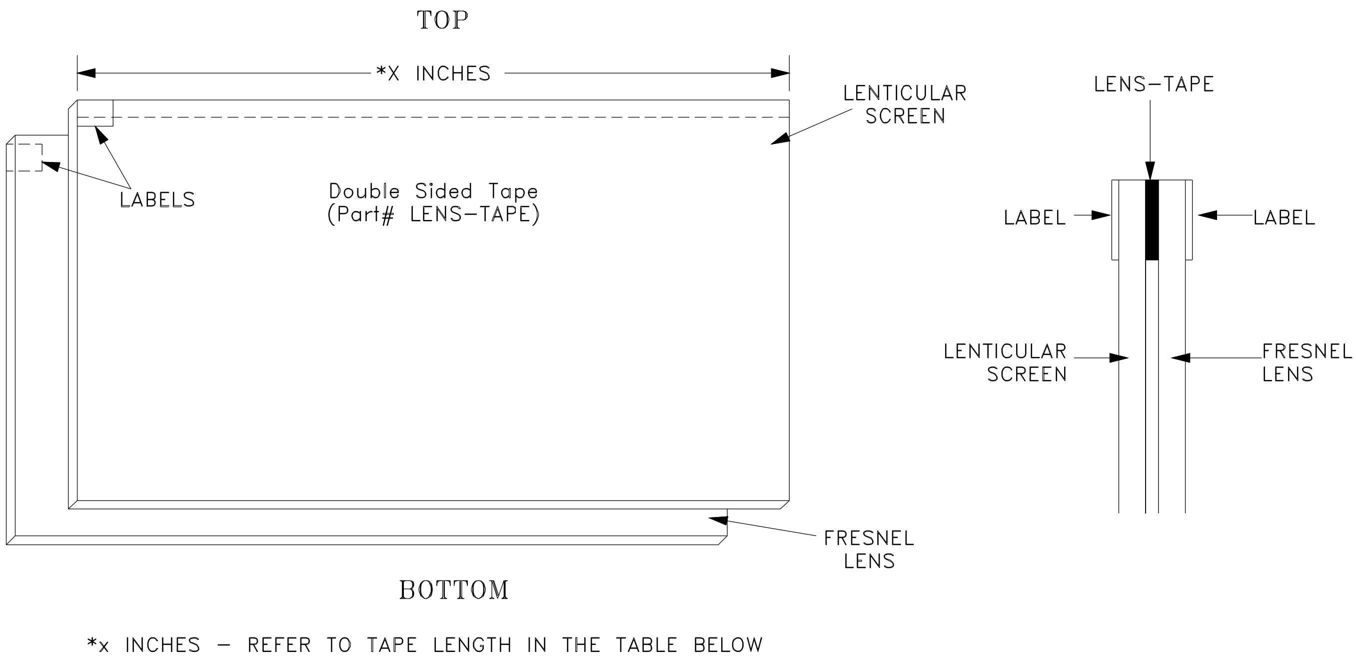


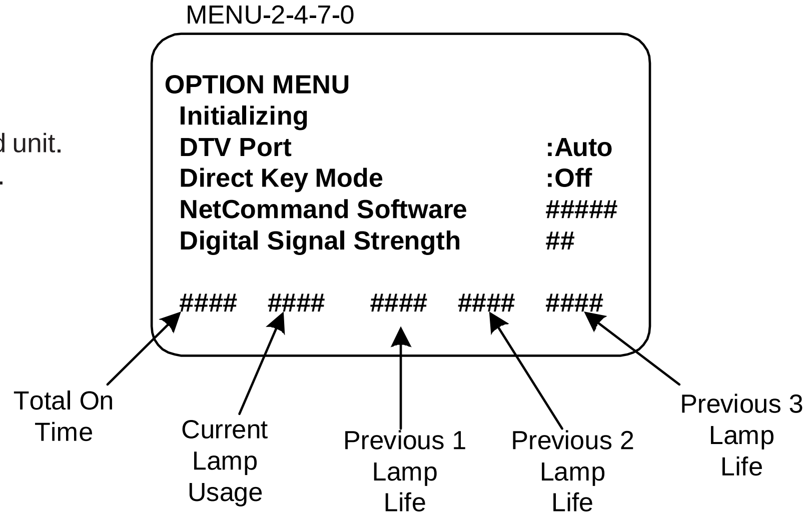
Figure 4: Installing the Fresnel Lens & Lenticular Screen

*X INCHES - refer to the Tape Length in the table below

MODEL	SCREEN SIZE	TAPE LENGTH
WD-52527	55 inch	46.3 inches
WD-52528	55 inch	"
WD-62527	65 inch	55.1 inches
WD-62528	65 inch	"

OPTION MENU

1. Press the “MENU” button on the remote hand unit.
2. Press the buttons “2”, “4”, “7” and “0” in order.
   (The screen will change to the option menu.)



Defaults After Initialization

Setup Menu	
Language	:English
Combined Channel View	--
NetCommand Menu	
Edit	--
Transport	:On
Default Digital Record Device	--
Icon Order	--
Antenna Menu	
Antenna	:1
Memorize	--
prefer Digital	--
Channel	:3
Memory	:Added
Name	--
SQV	--
Time Menu	
Clock Setting	:Manual
Time Menu	:12:00pm
Date	--
Time Zone	--
Daylight Savings Time	--
Timer	--
Captions Menu	
Analog Captions	:On if Mute
Background	:Gray
Digital Captions	:On if Mute
Appearance	
Digital Settings	
Font	:Font 3
Size	:Large
Color	:White
Background	:Black
Opacity	:Translucent
Backgroung Opacity	:Translucent
V-Chip Lock Menu	
On/Off	:Off
TV Rating	:TV-PG
FV-Fantasy Violence	:Enable
D-Sexual Dialog	:Enable
L-Adult Language	:Enable
S-Sexual Situations	:Enable

V-Chip Lock Menu (Continued)	
V-Violence	:Enable
Programs Not Rated	:Enable
Moving Rating	:PG
V-Chip Time	
Start	:12:00pm
Time	:12:00pm
Lock By Time	
On/Off	:Off
Lock Time	:12:00pm
Unlock Time	:12:00pm
Front button Lock	:Off
Audio/Video	
A/V Reset	:Ant-1
Audio	
Bass	:50%
Treble	:50%
Balance	:50%
Surround	:Off
Listen To (Analog Only)	:Stereo
Level Sound	:On
Language (Digital Only)	:English
Video	
Contrast	:100%
Brightness	:50%
Sharpness	:50%
Color	:50%
Tint	:50%
Color Temp	:High
Video Noise	:Standard
Film Mode (Auto)	:On
DefinEdge	:On
Color Balance	
Video Mute	:On
Black Enhancement	:On
TV Speakers	:On
TV Volume	:30%
PIP Source	Ant 1 003
PIP Position	Lower Right
POP Position	Right Half
PIP/POP Format	Double Window
Format	Stretch

AV Reset Defaults

A/V Memory	Ant 1&2	Input 1/2/3	Component 1/2/3*	1394 (if conn.)	HDMI™ 1&2
TV Contrast	Max	Max	Max	Max	Max
TV Brightness	Center	Center	Center	Center	Center
TV Sharpness	Center	Center	Center	Center	Center
TV Color	Center	Center	Center	Center	Center
TV Color Temp.	High	High	High	High	High
Video Noise	Standard	Standard	Standard	N/A	N/A
TV Film Mode (Auto)	On	On	On	N/A	On
TV DefinEdge (VSM)	On	On	On	On	On
TV Bass	Center	Center	Center	Center	Center
TV Treble	Center	Center	Center	Center	Center
TV Balance	Center	Center	Center	Center	Center
TV Surround	Off	Off	Off	Off	Off
TV Listed To	Stereo	N/A	N/A	N/A	N/A
TV Level Sound	On	On	On	On	On

A. A/V Memory

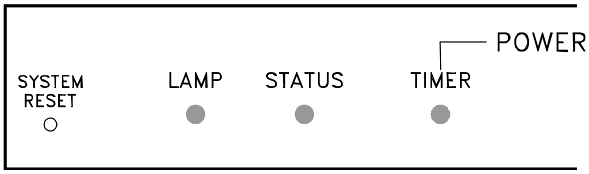
Each of the external inputs has its' own Audio/Video Memory. A change in an A/V setting at a specific input is stored in memory for that specific input.

B. A/V Reset

1. The front panel AV Reset (pressing the "Guide" and "Format" buttons at the same time) initializes all A/V Memories.
2. The AV Reset in the user's menu initializes only the selected input's A/V Memory.

LED Indicator Diagnostics

The front panel LEDs provide an indication of the sets operation, and the possible cause of a malfunction. There are three front panel LEDs, "Power", "Status" and "Lamp". Which LED is lit, the color and whether it is blinking or steady indicate the current status, or a possible malfunction.



Front Panel LEDs

Normal LED Indications

POWER LED	STATUS LED	LAMP LED	Power Status	Condition
Off	Off	Off	Stby	Off
Green	Off	Off	P-0N	Power On
Off	Off	Blinks Green	After Turn Off	Lamp Fan On for 1 minute
Blinks Green	Off	Off	Stby	Booting after AC applied
Slow Blinks Green	Off	Off	Stby	On Timer is set

Abnormal LED Indications

POWER LED	STATUS LED	LAMP LED	Power Status	Condition
Off	Yellow	Off	Low Power	Excess Temperature
Off or On	Off	Yellow	No change	Usage time over 4000 Hrs.
Off	Off	Blinks Yellow	Low Power	Lamp Cover open
Off	Blinks Yellow	Off	"	Filter Cover Open
Off	Off	Red	Stby	Lamp did not turn On
Off	Blinks Red	Off	Low Power	Fan Stopped
Off	Red	Off	"	Circuit failure (short or DVI connector unplugged)

3. Error Code Operational Check

Note: The TV must be in "Shut Down" and not have been switched Off, to perform the Error Code Operational Check. When the TV is switched Off, the code automatically resets to "12" No Error.

Pressing the front panel "DEVICE" and "MENU" buttons at the same time, and holding for 5 seconds, activates the Error Code Mode. The LED flashes denoting a two digit Error Code, or indicating no problem has occured since the last Initalization.

Note: The front panel buttons must be used, NOT those on the Remote Control.

- The number of flashes indicates the value of the MSD (tens digit) of the Error Code.
- The flashing then pauses for approximately 1/2 second.
- The LED then flashes indicating the value of the LSD (ones digit) of the Error Code.
- The Error Code is repeated a total of 5 times.
  Example: If the Error Code is "32", the LED will flash three times, pause, and then flash two times.

4. Error Codes

The Error Code designations indicating malfunction, or no malfunction, are listed below:

Error Codes "DEVICE" & "MENU"

Error Codes	Description
12	No error detected
22	Recovery from Reset
32	Lamp cover is Open
33	Air Filter is open
34	Lamp abnormality
35	DM Fan failed
36	Exhaust or Lamp Ballast Fan failed
37	LCD Engine Fan failed
38	Lamp temperature abnormally high
39	LCD temperature abnormally high
41	Short is detected
42	Lamp Fan failed
44	DVI cable between Format and Engine disconnected
45	PBS Fan Failed
46	JC connector disconnected
47	DM Temperature too high
48	Engine power supply short detected
51	Speaker short detected
56	Shutter not connected

Remote Control Operational Modes

There are two Remote Hand Unit Operational Modes, “Standard” and “NetCommand™”. The Remote is initially in the “Standard” mode. The “NetCommand” mode is used when controlling Home Theater devices using NetCommand. To change the Remote Operational Mode:

- Set the Remote to the TV Layer
- Point the Remote away from the TV.
- To change to “Netcommand” ... Hold the “Power” button and press “9-3-5” in sequence.
- To change to “Standard” ... Hold the “Power” button and press “0-0-0” in sequence.

SERVICE ADJUSTMENTS

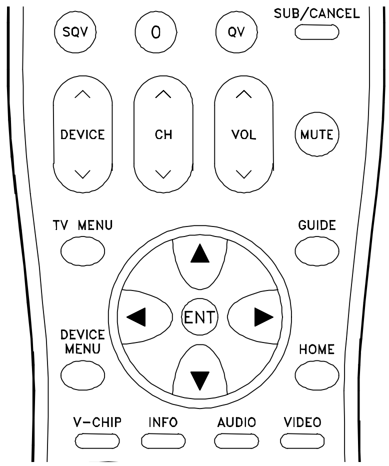
There are only 4 Service Adjustments required in these models:

Two Electrical Adjustments

- Horizontal Centering
- Vertical Centering

Two Mechanical Adjustment

- Picture Rotation
- Vertical Keystone Distortion



Measuring equipment and Jigs

- Conventional Electrical and Hand Tools.
- No additional Test Equipment is required.

Test signal

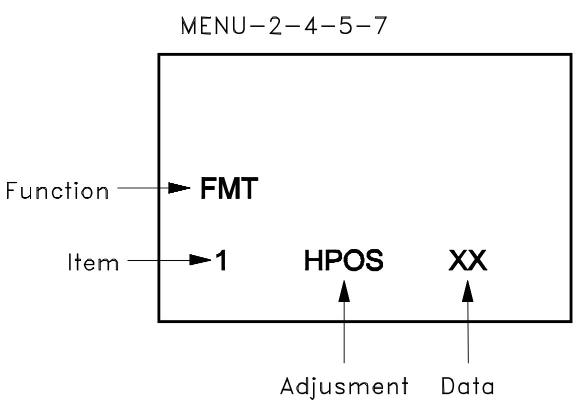
An internally generated Test Signal is used, no additional signals are required.

Circuit Adjustment Mode

On these models, the Circuit Adjustment Mode is used only for:

- Internal Test Signal activation
- Horizontal Centering
- Vertical Centering
- Data Transfer

These functions can only be performed using the remote control.



1. Activating the Adjustment Mode

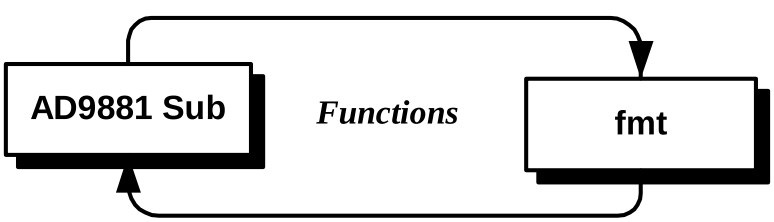
1. Press the “MENU” button on a remote hand unit.
   (The “MENU” display will appear.)
2. Press the buttons “2”, “4”, “5” and “7” in that order.
   The screen will change to the Circuit Adjustment Mode.
   If change does not occur, repeat steps 1 and 2.

2. Test Signal Activation

When in the Circuit Adjustment mode, use the “REWIND” and “FAST FORWARD” buttons on the remote control to toggle through the test patterns. These patterns are used for both electrical and mechanical adjustments.

3. Adjustment Function Selection

Use the “AUDIO” button to select an Adjustment Function.



4. Adjustment Selection

Use the “VIDEO” button to select a specific elecrtrical ajustment, “1 HPOS” or “2 VPOS”.

5. Adjusting Data

After selecting an adjustment item, use the “UP” and “DN” buttons to change adjustment data.

- If the “UP” button is pressed, the adjustment data increases.
- If the “DN” button is pressed, the adjustment data decreases.

6. Saving Data

Press “ENTER” to save the adjustment data in memory.
The display characters go red for approximately one second in this step.

Note: If the circuit adjustment mode is terminated without pressing “ENTER”, changes in adjustment data are not saved.

7. Terminating the circuit adjustment mode

Press the “MENU” button on the remote hand unit twice to terminate the adjustment mode.

Note: The adjustment mode can be also terminated by turning the power off.

Transferring Data

1) Enter the Service Adjustment Mode ... Press “MENU-2-4-5-7”
2) Press “0” when in the Service Mode ... Three choices appear at the top of the screen.

Data Transfer "MENU-2-4-5-7-0"

Display	Description
Restore Back Up	Resets data to factory values
Upload Terminal Data	Not used
Down load WB data to FMT	Use after replacing Engine PWB-FORMAT

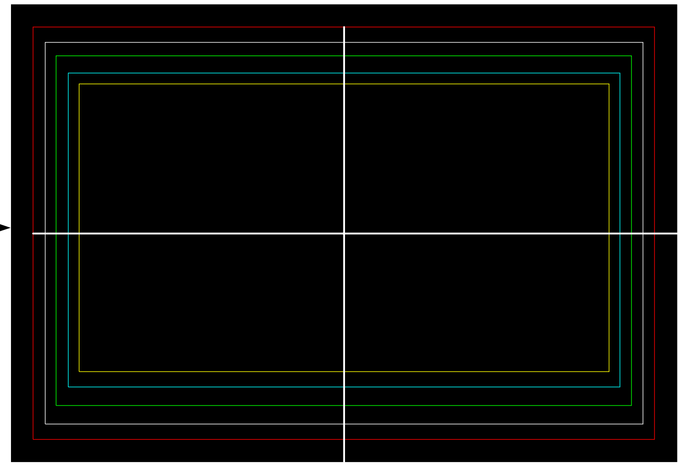
3) Use the UP & DN keys to highlight the desired choice, the Press “ENTER”

Light Engine Adjustments

Test Signal Activation

1) Press “MENU-2-4-5-7” (Service Mode)
2) Press “REW” (Test Pattern).

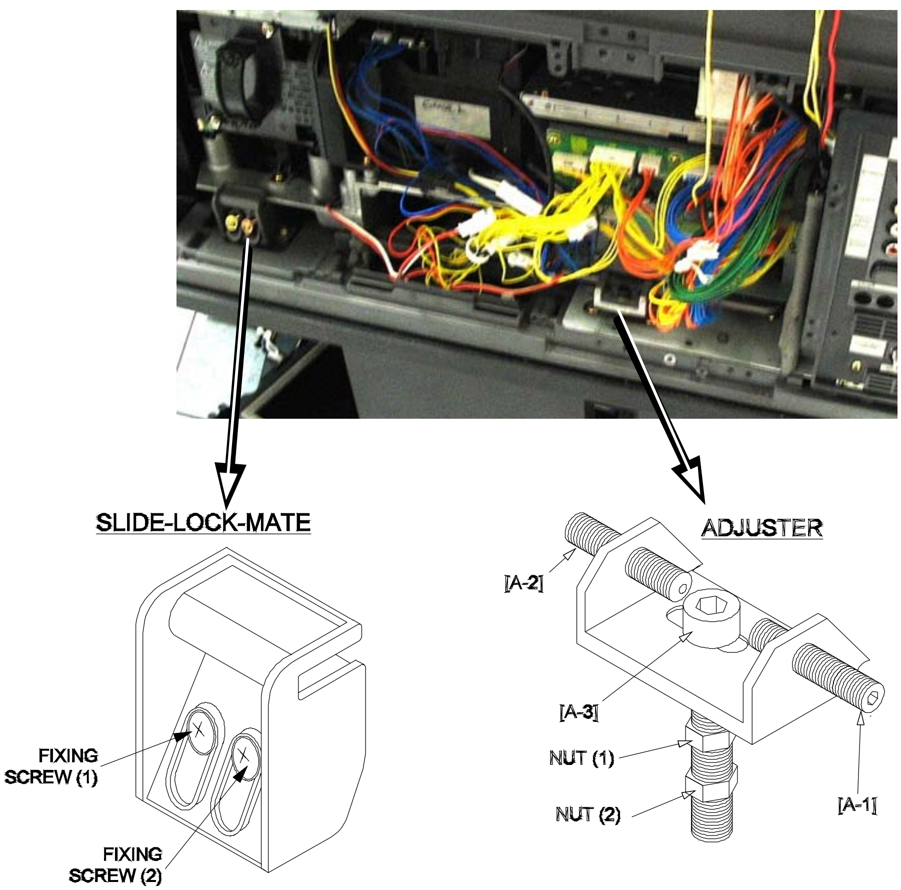
Red = 4% overscan
White = 5% overscan
Green = 6% overscan
Cyan = 7% overscan
Yellow = 10% overscan



Prelminary (refer to the diagram below)

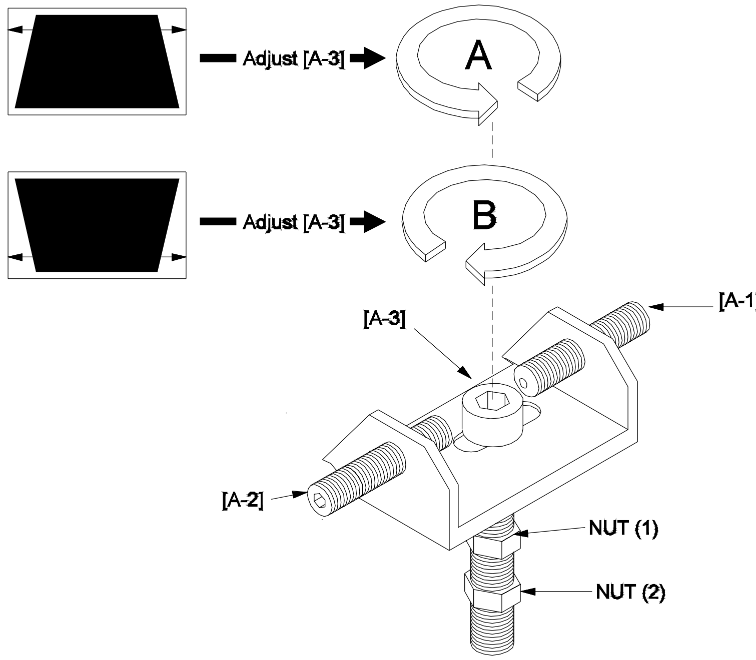
1) Remove Back Board
2) Loosen Fixing Screws (1) and (2) in the Slide Lock Mate
3) Loosen Nuts (1) and (2) on the Adjuster
4) Loosen [A-1] and [A-2] on the Adjuster

Light Engine (Rear View)



Trapezoid Distortion Adjustment

1) Loosen [A-1] and [A-2] so they clear [A-3].
2) For Distortion at the top of the picture, rotate [A-3] counter clockwise (the picture will move upward).
3) For distortion at the bottom of the picture, rotate [A-3] clockwise (the picture will move upward).



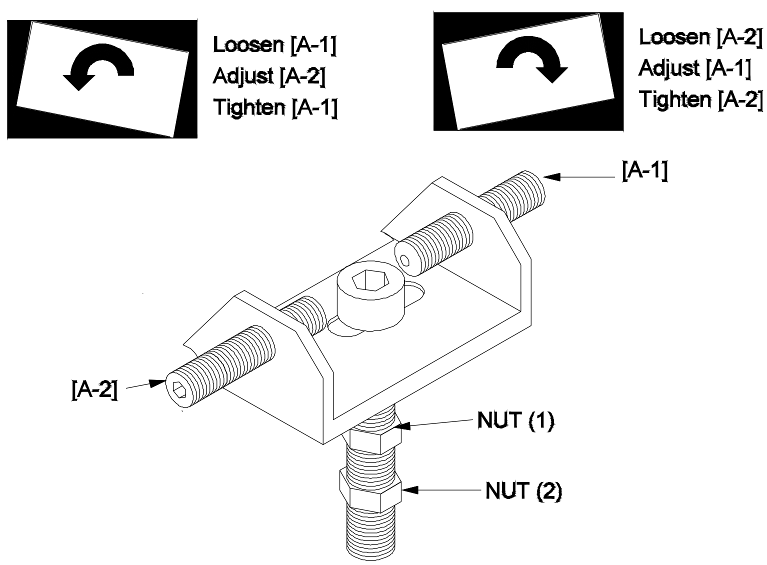
Rotation Adjustment

Clockwise Rotation Needed

1) Loosen [A-2]
2) Use [A-1] to adjust rotation.

Counter Clockwise Rotation Needed.

1) Loosen [A-1]
4) Use [A-2] to adjust rotation



After Adjustment (refer to previous page)

1) Tighten Nuts (1) and (2).
2) Tighten Slide-Lock-Mate fixing screws (1) and (2).
3) Insure [A-1] and [A-2] are flush against [A-3].

[Format Circuit]

Horizontal/Vertical Position Adjustment

Purpose: To center the picture on the screen.

Symptom: Picture is off center.

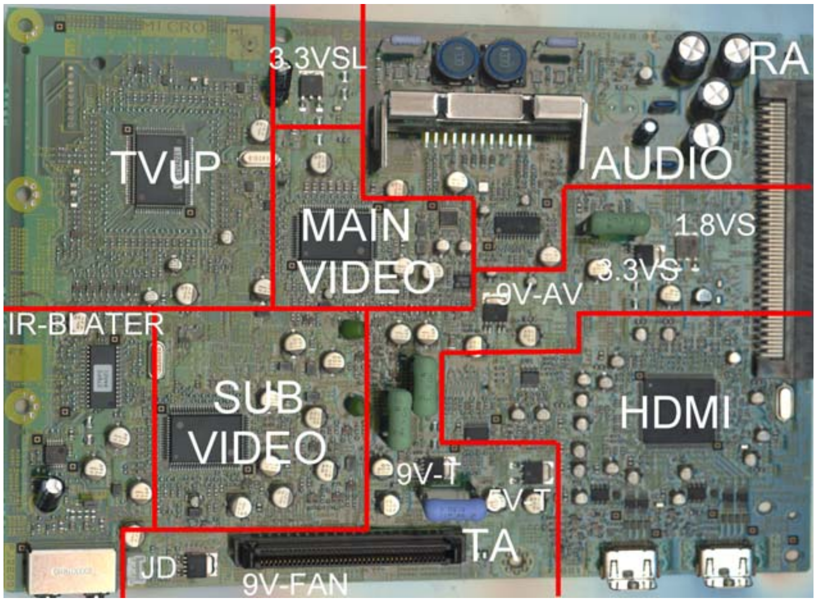
Measuring Instrument	
Test Point	----
Ext. Trigger	------
Measuring Range	------
Input Signal	Internal Test Patern.
Input Terminal	Video

1. Press “MENU-2-4-5-7”, to activate the Service Mode..
2. Press “REWIND”, to activate the Overscan Test Pattern
3. Select the “FORMAT” function (AUDIO button).
4. Select “Item 1” HPOS (VIDEO button).
5. Use the ADJUST buttons to center the picture horizontally.
6. Press ENTER to save the new setting.
7. Select “Item 2” VPOS (VIDEO button).
8. Use the ADJUST buttons to center the picture vertically.
9. Press ENTER to save the new setting.
10. Press MENU to exit the Service Mode.

MICRO / TERMINAL PWB TROUBLESHOOTING

Troubleshooting Guide	
Symptom	**Possible Causes**
No audio or video on one input	Physical damage on RCA jack, broken solder or trace at pin on terminal board
No video on all inputs	TA connecter loose, No Vcc to IC2K01, IC9C00, IC9C10, IC9C20
No audio on all inputs	TA connecter loose, No Vcc to IC3J01, IC9C00, IC9C10, IC9C20, IC3E00, IC3E01
No HDMI signal	Source not HDMI compliant, physical damage to J2001, J2101, no Vcc to IC2000, IC2600, IC9C20, IC9C71, IC9C81
No HDMI audio	Source is DVI mode, IC2401, IC9C71
No DVI audio	IC3J02, IC3J03
No power or TV won't boot	Loose RA connector, no Vcc to IC7A00, IC9C51
TV shuts down	Loose or disconnected JD connector , no Vcc to IC7C81
Main picture ok, no PIP	Loose or disconnected JD connector , no Vcc to IC7C81
Main picture ok, no PIP	IC2K01, Q2M20, 21, 22
PIP ok, no main picture	IC2K02, 03, 04, Q2M00, 01, 02
No closed captioning	Q2K07, 08, 09, 30, 31, 32
IR blaster not working	Physical damage on phono jack PJ2E00, 01, broken solder or trace at pin on Micro board, no Vcc to IC7P01-05

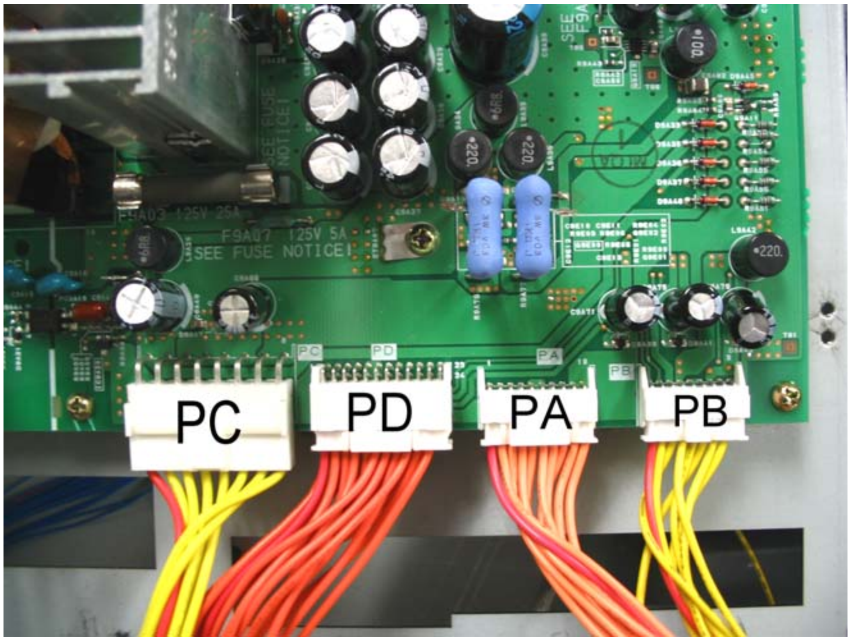
MICRO PWB LAYOUT



POWER PWB TROUBLESHOOTING

SYMPTOM	CHECK POINT	POSSIBLE CAUSE
ERROR CODE 51	Check +15VS @ connector PD pin 1	Check Q9E00 circuit
	Check -15VS @ connector PD pin 7	Check Q9E00 circuit
ERROR CODE 34	Check 340VDC @ connector PL	Check doubler circuit
		Check ballast circuit
ERROR CODE 48	Check 3.3V @ connector PA2 pin 1	IC9A24 circuit
		Zener D9A43
	Check 18V @ L9A45/C9A82	Q9A13 circuit
ERROR CODE 41	Check 12VS @ connector PD pin 14	IC9A23 circuit
		Zener D9A41
	Check 5VS @ connector PC pin 8	IC9A21 circuit
		Q9A12 circuit
		Zener D9A47
	Check 4.5V @ connector PD pin 19	F9E10
		F9E11
NO POWER	CHECK ALL FUSES	
	Check 18V @ TP18VS	T9A10 circuit
		IC9A10 circuit
	Check 5VSL @ connector PD pin 16	IC9A22 circuit
		Zener D9A39
	Check connector PD pin 20 for HIGH (active)	PC9A21 circuit

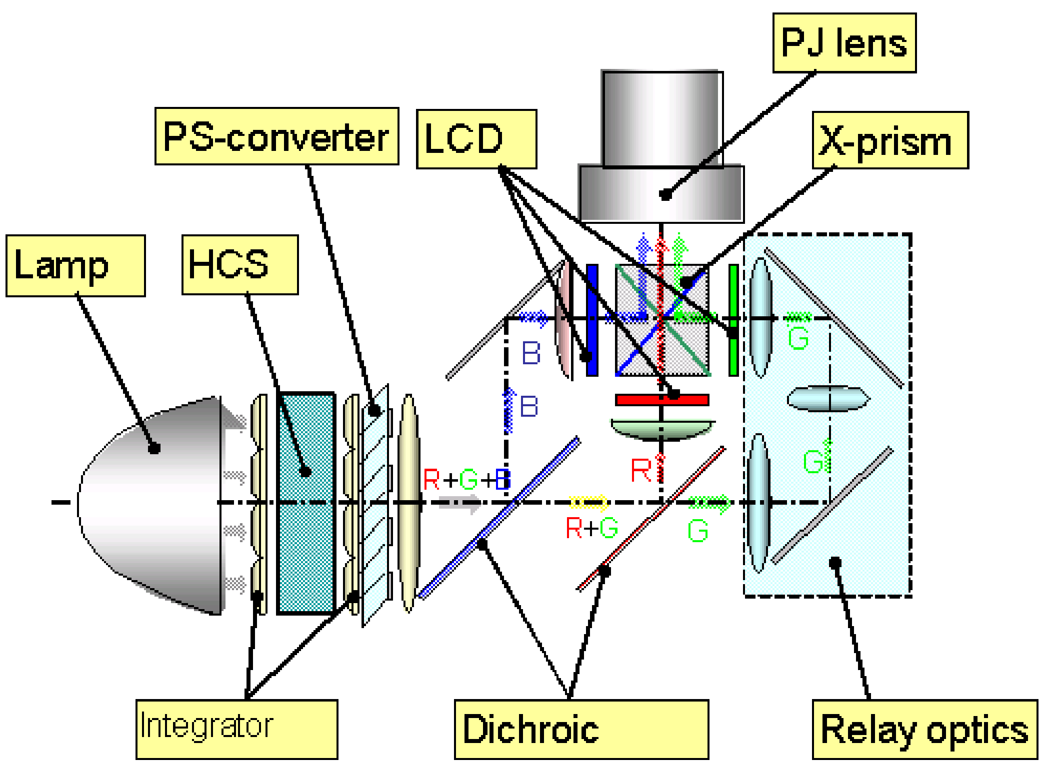
POWER PWB OUTPUT CONNECTORS



OPTICAL ENGINE TROUBLESHOOTING

Symptom	Cause	What to check
No Light	FMT does not turn on lamp due to fault detection	Check error code on front pannel. Check problem indicated.
	No DC supply to ballast	Check power PWB PL connector for approx. 340VDC. Check connections PL-JE, JE-CN2
	No Lamp enable signal	Check FMT output Lamplitz FB pin 1. Check connections FB-FB, CJ3-CJ3
	Lamp end of life	Repace lamp and check
	Ballast Broken	Replace ballast and check
No Picture, bad picture	FMT does not turn on video	Check diagnostic code. Check circuit indicated.
	DVI cable not connected	check DVI connections
	Engine power missing	Check connections PA2-CN102
	Engine is blanked.	Check control connections FC-FC, KC-CN3100.
	FMT not providing video signal	Check FMT Board.
	Engine broken	Replace engine and check.
High Contrast Unit not Working	No power to Shutter	Check 18V from Power board PB pin4. Check connections PB-PB, KD-CN1
	No control of shutter	Check connections CN5-JG, JG-KD, KD-CN2
	FMT does not control shutter	Replace FMT and check.
	Shutter broken	Replace engine.
Set Shuts down after a while	Fan not working. Temp sensor.	Check error code and check indicated fan or sensor.
	Filter clogged	Check filter and clean or replace.
	Temp sensor problem	Check error code. Check connections DT-KB, LT-KB. Check sensor
	Air path blocked	Check air flow from each engine fan.

LCD ENGINE INTERNAL LAYOUT



LAMP PROTECT LINE

COVER-DET Status [CD]	LAMP_PROT. Voltage (KA/pin 14)	LED Indicators	Emergency code (Device+Menu)	Comment
Engaged	2.46 V	N/A	N/A	Normal condition
OPEN	1.64 V	Lamp: Yellow, blink.	32	Turns OFF fast (1-2 sec).

ENGINE PROTECT LINE

Sensor Status			ENG_PROT. Voltage (FB/pin 9)		LED Indicators	Emergency code (Device+Menu)	Comment
LAMP-TEMP [LT]	FILTER-DET [CF]	SENSOR-DET [DT]	Specified	Measured			
Engaged	**Engaged**	**Engaged**	2.88 V ~ 2.68 V	2.82 V	N/A	N/A	Normal condition
Engaged	**Engaged**	**OPEN**	2.48 V ~ 2.28 V	2.40 V	Status: Yellow.	46	Turns OFF fast (1-2 sec).
Engaged	**OPEN**	**Engaged**	2.08 V ~ 1.88 V	2.00 V	Status: Yellow, blink.	33	Turns OFF fast (1-2 sec).
OPEN	**Engaged**	**Engaged**	1.30 V ~ 1.10 V	1.20 V	Status: Yellow.	38	Turns OFF slowly (25-30 sec). Warning on screen.

FAN DETECT LINE

Fan Status				FAN_DET Voltage (FB/pin 9)		LED Indicators	Emergency code (Device+Menu)	Comment
PBS [JB]	LAMP [JA]	MD [JC]	BALST [JF]	Specified	Measured			
Drive: 10.04 V Engaged	**Drive: 10.04 V Engaged**	**Drive: 6.01 V Engaged**	**Drive: 7.02 V Engaged**	3.02 V ~ 2.92 V	3.00 V	N/A	N/A	**Normal condition**
Engaged	**Engaged**	**Engaged**	**OPEN**	2.82 V ~ 2.72 V	2.80 V	Status: Red, blinking.	36	Turns OFF fast (1-2 sec).
Engaged	**Engaged**	**OPEN**	**Engaged**	2.62 V ~ 2.52 V	2.60 V		37	
Engaged	**OPEN**	**Engaged**	**Engaged**	2.23 V ~ 2.13 V	2.20 V		42	
OPEN	**Engaged**	**Engaged**	**Engaged**	1.44 V ~ 1.34 V	1.40 V		45	

Using Lead Free Solder

Pb Solder

The above symbol indicates Lead (Pb) Free solder was used during the construction of PWBs. **Only Lead Free solder** should be used when servicing these PWBs.

Solder must be compatible with that used by the manufacturer. Leaded solder can not be used on PWBs manufactured with Pb-free solder. The Mitsubishi standard for service requires the use of Tin-Silver-Copper (Sn-96.5, Ag-3.0, Cu-0.5). It can be obtained through the Parts Department.
Order part number: **PB FREE SOLDER**

Lead Free solder has a higher melting point, and does not "wet" as well as leaded solder. This means it does not adhere as readily to the solder iron tip, and the surface to be soldered. To counteract this, the flux used is more corrosive.

The following cautions must be taken when using Pb Free solder.

- Higher temperatures can cause the PWB to warp, detaching surface mount components.
- Higher temperatures may cause thermal damage to components.
- Higher temperatures can cause plastics, such as connectors, relays, LEDs electrolytic capacitors, etc. to melt or warp.
- Higher temperatures can cause surface oxidation resulting in poor solder spread-ability and wet-ability.
- The flux is more corrosive.
- The time required for a good solder connection may take longer.
- Poor wet-ability can cause solder balls.
- Higher temperatures can cause flux spattering.
- Soldering iron tip life is shortened.
- Dull finish solder joints (not shiny) can appear to be a "cold" solder joint.

In general a tip temperature of 700° F will usually provide good results.

Displays used to indicate Pb-free

PCBs will be marked, indicating the level of Pb-free construction. *Table 1* defines the levels by phase and shows the different symbols that will be displayed on the PCB. Additionally, a PCB constructed using Pb-free solder may be simply marked **LFS**.

When possible, the indication will be placed close to the part number that is screened onto the PCB (not the part label). *Figure 1* is an example of a PCB showing the display and its location.

Pb-Free Phase	Definition	Display	Short Display (When the area is too small)
Phase-1	PCB's constructed using Pb-free solder.	Pb Solder	Pb S
Phase-2	Solder, PCB surface finishing and component lead plating is Pb-free. Components may have internal Pb.	Pb Joints	Pb J
Phase-3	Solder, PCB surface finishing and components are Pb-free. (100% Pb-free)	Pb PCA	Pb P

Table 1: Pb-Free Phases and Symbols



Figure 2: Pb-Free display on PWB

CHIP PARTS REPLACEMENT

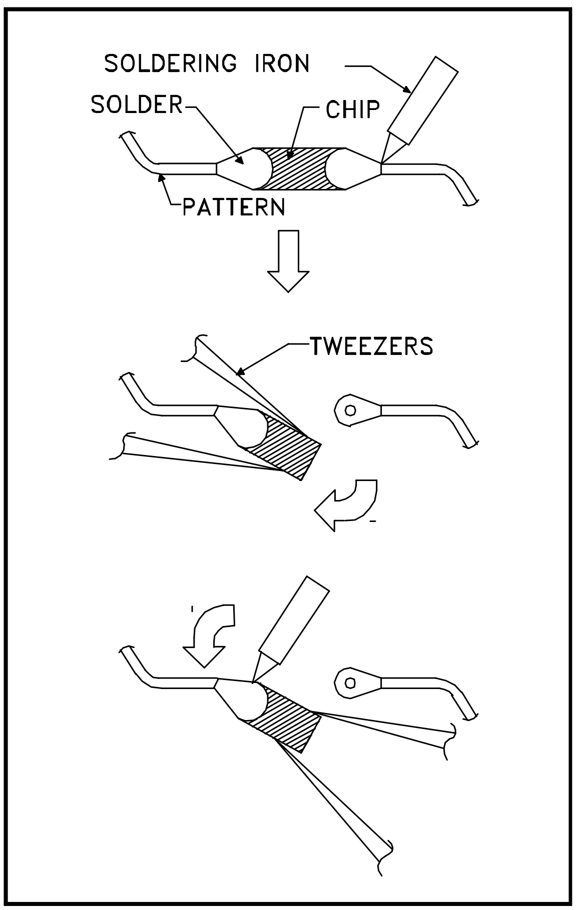
Some resistors, shorting jumpers (0 Ohm resistors), ceramic capacitors, transistors and diodes are chip parts. The following precautions should be taken when replacing these parts.

Cautions:

1. Use a fine tipped, well insulated soldering iron and tweezers.
2. Melt the solder and remove the chip parts carefully so as not to tear the copper foil from the printed circuit board.
3. Discard removed chips; do not reuse them.
4. Do not apply heat for more than 3 (three) seconds to new chip parts.
5. Avoid using a rubbing stroke when soldering.
6. Take care not to scratch, or damage the chip parts when soldering.
7. Supplementary cementing is not required.

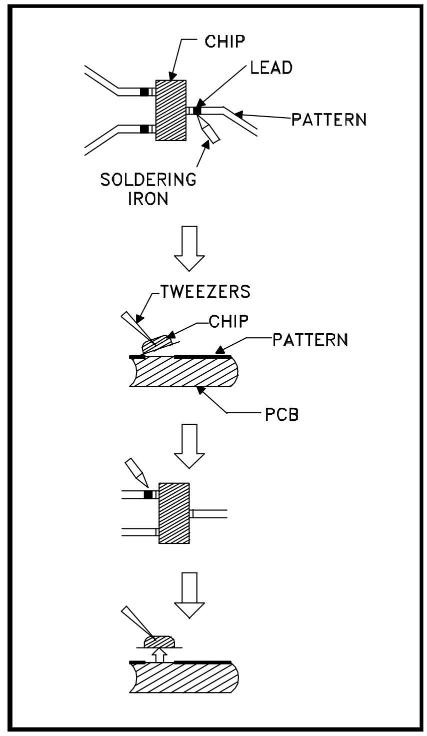
Chip Parts Removal (Resistors, Capacitors, etc.)

1. Grasp the part with tweezers. Melt the solder at both sides alternately, and remove one side of the part with a twisting motion.
2. Melt the solder at the other side and remove the part.



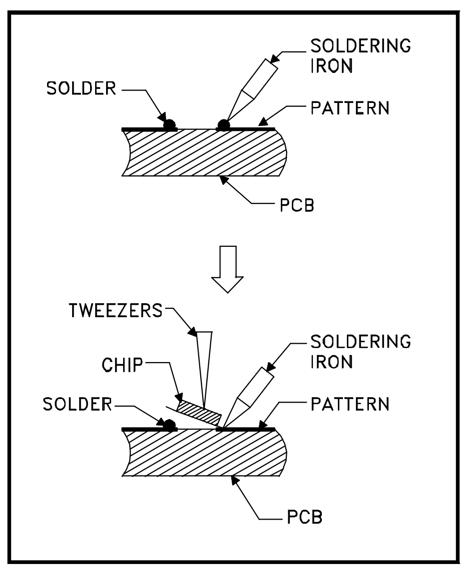
Chip Parts Removal (Transistors)

1. Melt the solder of one lead and lift the side of that lead upward.
2. Simultaneously melt the solder of the other two leads and lift the part from the PCB.



Replacement

1. Presolder the contact points on the circuit pattern.
2. Press the part downward with tweezers and apply the soldering iron as shown.



REPLACEMENT PARTS

Parts Ordering

To expedite delivery of replacement parts orders, specify the following:

1. Model Number/Serial Number
2. Part Number and description
3. Quantity

Note: Unless complete information is supplied, delay in processing of orders will result.

Critical and Warranty Parts Designation

Critical Electrical Components are indicated by **Bold Type** in the Parts List, and in the schematic diagrams by shading.

Warranty Return Parts are indicated in the Parts List with an **(*)**.

Parts Tolerance Codes

Refer to the following chart for tolerance characteristics of electrical components.

MARK	B	C	D	F	G	J	K
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
Tolerance %	± 20	± 30	± 10	+ 40 -20	+ 80 -20	+ 100 - 0	+ 30 -10

MARK	M	N	V	X	Z
Tolerance (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

QUICK REFERENCE FOR COMMON PARTS

MAJOR BOARD ASSEMBLIES

Assembly	WD-52527/WD-52528	WD-62527/WD-62528
ASSY-PWB-POWER1	930B933001	930B933001
ASSY-PWB-TERMINAL	934C150001	934C150002
ASSY-PWB MICRO	934C151001	934C151001
ASSY-PWB-DM	934C152001	934C152001
ASSY-PWB V28FMT	934C153001	934C153001
ASSY-PWB RISER	934C154001	934C154001
ASSY-PWB INTERFACE	934C155001	934C155001
ASSY-PWB-DEMOD1	935D819001	935D819001
ASSY-CHASSIS	955B312001	955B312002

OPTICAL COMPONENTS

MODEL	OPTICAL-ENGINE	LAMP CARTRIDGE	UNIT-POWER-LAMP (BALLAST)
WD-52527	938P015010	915P028010	938P016010
WD-52528	"	"	"
WD-62527	938P015020	"	"
WD-62528	"	"	"

MIRROR & SCREEN PARTS

MODEL	MIRROR	LENTICULAR SCREEN	FRESNEL LENS	BEZEL
WD-52527	767D077010	491P176060	491P175030	761A252010
WD-52528	"	"	"	"
WD-62527	767D75020	491P176070	491P175040	761A253010
WD-62528	"	"	"	"

MISCELLANEOUS PARTS

MODEL	CHASSIS FAN	LAMP FAN	PBS FAN	BALLAST FAN	L/V FAN (Induction)	REMOTE CONTROL
WD-52527	299P288010	299P288010	299P296010	299P287010	299P295010	290P122020
WD-52528	"	"	"	"	"	290P123020
WD-62527	"	"	"	"	"	290P122020
WD-62528	"	"	"	"	"	290P123020

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

INTEGRATED CIRCUITS

Ref #	Part #	Part Name & Description	[#]
IC101	266P419040	IC - M5223AFP	
IC102	266P419040	IC - M5223AFP	
IC106	276P089010	IC-C-MOS - TC7W66FU	
IC107	261P839010	TR-CHIP - TPCP8J01	
IC1501	276P212010	IC-C-MOS - UPC3221GV	
IC1505	271P130010	IC-C-MOS - T313R100-CG0521	
IC1506	271P156010	IC - MIC49150WR TR	
IC1507	271P072040	IC - LD29150DT18R	
IC2000	276P203010	IC-C-MOS - SiI9021CTU144	
IC2001	275P981010	IC-C-MOS - 24LCS22AT/SN	
IC2002	271P172010	IC - CM1213-04MS	
IC2003	271P172010	IC - CM1213-04MS	
IC2101	275P981010	IC-C-MOS - 24LCS22AT/SN	
IC2102	271P172010	IC - CM1213-04MS	
IC2103	271P172010	IC - CM1213-04MS	
IC2401	276P109010	IC-C-MOS - CS4334-KS	
IC2600	271P152010	IC-C-MOS - MAX7454UUP+	
IC2C02	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC2C03	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC2K01	271P139010	IC - AN15865A	
IC2K02	271P139010	IC - AN15865A	
IC2K03	272P951010	IC - BA7046F	
IC2K04	276P237010	IC-C-MOS - SN74HC4066PWR	
IC3E00	271P080010	IC - TDA8922J	
IC3E01	271P138010	IC - LV1115	
IC3J01	271P140010	IC - MM1631XJBE	
IC3J02	270P838010	IC-C-MOS - NJM2520M	
IC3J03	270P838010	IC-C-MOS - NJM2520M	
IC3J04	271P078010	IC - MM1566AJBE	
IC7A00	276P244020	IC-C-MOS - M30GV7FGFP#U0-V281	
IC7A01	271P023010	IC - SN74CBTD1G125DBVR	
IC7A02	270P706020	IC - MAX823REUK	
IC7A03	275P786010	IC-C-MOS - TC7SA08FU	
IC7A29	271P023010	IC - SN74CBTD1G125DBVR	
IC7C81	271P081010	IC - BA00CC0WFP	
IC7E00	276P238010	IC-C-MOS - SN74LVC14APWR	
IC7E01	276P197010	IC-C-MOS - AD9981KST-80	
IC7E03	270P992010	IC - BA18BC0FP	
IC7E05	270P992030	IC - BA33BC0FP-E2	
IC7E06	276P237010	IC-C-MOS - SN74HC4066PWR	
IC7EA1	267P176020	HIC - AF-1477	
IC7EB0	276P146010	IC-C-MOS - CS5340-CZR	
IC7EB1	270P938010	IC - MC33202D	
IC7G01	275P982020	IC-C-MOS - MT48LC2M32B2P-7	
IC7G02	270P348010	IC - TLC2932IPW	
IC7G03	270P992030	IC - BA33BC0FP-E2	
IC7G04	275P236020	IC-C-MOS - TC74LVX244FT	
IC7G05	274P901010	IC-C-MOS - TC74HCT7007AF	
IC7G06	270P879030	IC - SC1566I5M-2.5TR	
IC7G07	275P982020	IC-C-MOS - MT48LC2M32B2P-7	
IC7G08	276P194010	IC-C-MOS - MB87S1270PB-ES	
IC7K21	270P831010	IC-C-MOS - OPA2350PA	
IC7P01	276P204020	IC-C-MOS - PIC18F2510I/SO	
IC7P02	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC7P03	263P154010	IC-C-MOS - SN74HC132DB	
IC7P04	271P023010	IC - SN74CBTD1G125DBVR	
IC7P05	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC7R01	276P281010	IC-C-MOS - SN74LVC2GU04DBVR	
IC7R02	275P443010	IC-C-MOS - TC7SET08H	
IC7R03	270P706010	IC - MAX823	
IC7R04	271P023010	IC - SN74CBTD1G125DBVR	
IC7R05	276P108030	IC-C-MOS - M306H2FCFP-V261	
IC7R06	271P023010	IC - SN74CBTD1G125DBVR	
IC7R07	271P023010	IC - SN74CBTD1G125DBVR	
IC7R08	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC7R09	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC8001	276P030030	IC-C-MOS - 215H31AGA12H	
IC8002	270P706020	IC - MAX823REUK	
IC8003	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC8004	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC8006	270P880010	IC - 24LC64I/SN	
IC8008	276P214010	IC-C-MOS - SN74LVC2G125DCUR	
IC8009	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC80E1	275P657050	IC-C-MOS - 24LC256T-I/SN	
IC80E2	271P150010	IC - 24LC512T-I/SM	
IC80E3	270P880010	IC - 24LC64I/SN	
IC8101	271P033010	IC - LP2996MRX	
IC8102	276P029030	IC-C-MOS - NT5DS16M16CS-5T	
IC8103	276P029030	IC-C-MOS - NT5DS16M16CS-5T	
IC8104	276P029030	IC-C-MOS - NT5DS16M16CS-5T	
IC8105	276P029030	IC-C-MOS - NT5DS16M16CS-5T	
IC8205	276P042010	IC-C-MOS - MIC2544-1BM	
IC8211	276P029030	IC-C-MOS - NT5DS16M16CS-5T	
IC8212	276P029030	IC-C-MOS - NT5DS16M16CS-5T	
IC8280	276P215010	IC-C-MOS - DS1337U+T&R	
IC8301	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8303	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8304	275P956030	IC-C-MOS - MD5811-D256-V3Q18-P	
IC8305	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8307	276P199010	IC-C-MOS - ST16C654CQ64TR-F	
IC8308	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8312	276P148030	IC-C-MOS - LC4128V-75TN100CS3248	
IC8313	276P200010	IC-C-MOS - CS4344-CZZ	
IC8314	276P200010	IC-C-MOS - CS4344-CZZ	
IC8315	270P938010	IC - MC33202D	
IC8316	270P938010	IC - MC33202D	
IC8401	276P193010	IC-C-MOS - MN864620	
IC8403	275P686010	IC-C-MOS - TSB41AB3PFP	
IC8404	271P155010	IC - MM1661FTRE	
IC8501	276P202020	IC-C-MOS - ICS443M-20LFT	
IC8502	275P124040	IC-C-MOS - SN74LVC245APWR	
IC8503	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8505	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8506	276P065030	IC-C-MOS - CIMAX SP2 PBF	
IC8507	275P913010	IC-C-MOS - SN74LVC257APWR	
IC8508	275P675010	IC-C-MOS - SN74LV125APWR	
IC8510	275P464010	IC-C-MOS - TC7WH14FK	
IC8511	271P171010	IC - MIC2040-1YMM	
IC8512	271P171010	IC - MIC2040-1YMM	
IC8513	271P171010	IC - MIC2040-1YMM	
IC8E01	271P133010	IC - MB8751340PB-ES	
IC8E03	275P982020	IC-C-MOS - MT48LC2M32B2P-7	
IC8F01	276P107020	IC-C-MOS - SiI164CTG64TR	
IC8G01	276P210020	IC-C-MOS - M30833FJFP#U5-V281	
IC8G02	275P657050	IC-C-MOS - 24LC256T-I/SN	
IC8G05	271P149010	IC-C-MOS - M62368GP#CFOJ	
IC8G06	276P213010	IC-C-MOS - SN74LVC1G17-DCKR	
IC8G07	276P214010	IC-C-MOS - SN74LVC2G125DCUR	

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

Ref #	Part #	Part Name & Description	[#]
IC8G08	276P214010	IC-C-MOS - SN74LVC2G125DCUR	
IC8G09	276P213010	IC-C-MOS - SN74LVC1G17-DCKR	
IC9A10	**267P175010**	**HIC - STR-W6735**	
IC9A20	**271P142010**	**IC - RT9H301C**	
IC9A21	271P141010	IC - TPS40071PWPR	
IC9A22	271P147010	IC - NJM2374AM	
IC9A23	270P990010	IC - SI-8120JD	
IC9A24	270P990020	IC - SI-8033JD	
IC9C00	271P071020	IC - BA09SFP	
IC9C10	271P071020	IC - BA09SFP	
IC9C20	270P677020	IC - BA05FP	
IC9C51	271P072020	IC - LD29150DT33	
IC9C71	271P071010	IC - BA033SFP	
IC9C81	271P072040	IC - LD29150DT18R	
IC9G01	271P141010	IC - TPS40071PWPR	
IC9G21	271P141010	IC - TPS40071PWPR	
IC9G22	270P879030	IC - SC1566I5M-2.5TR	
IC9G23	271P072040	IC - LD29150DT18R	
IC9G24	270P879030	IC - SC1566I5M-2.5TR	
IC9G41	271P141010	IC - TPS40071PWPR	
IC9G70	270P992050	IC - BA90BC0FP-E2	
IC9H01	270P992010	IC - BA18BC0FP	
IC9H02	270P992030	IC - BA33BC0FP-E2	
IC9J01	276P238010	IC-C-MOS - SN74LVC14APWR	
IC9J02	276P238010	IC-C-MOS - SN74LVC14APWR	
IC9J03	270P884010	IC - SI-8050JD	
IC9J04	270P884010	IC - SI-8050JD	
IC9J05	270P884010	IC - SI-8050JD	

TRANSISTORS

CHIP Type Transistors (Listed by Part No.)

Part No.	Description
261P837010	UPA672T
261P839010	TPCP8J01
261P842020	2SC3052-T112-1F
261P842030	2SC3052-T112-1G
261P842080	2SC3052-T112-1E;F
261P843010	2SA1235A-T112-1E
261P843020	2SA1235-T112-1F
261P843080	2SA1235-T112-1E;F
261P844010	RT1N436C-T112-1
261P845010	RT1P241C-T1112-1
261P846010	TPCP8402
261P851010	Si78720PT1E3

TRANSISTORS

Conventional Transistors (By Ref #)

Ref #	Part #	Part Name & Description	[#]
Q1501	261P026020	TR - 2SC3356-T1B-A	
Q1502	261P026020	TR - 2SC3356-T1B-A	
Q1503	261P026020	TR - 2SC3356-T1B-A	
Q2E01	261P114010	TR - 2SA1585STPR	

DIODES

Ref #	Part #	Part Name & Description	[#]
D1501	262P071070	DIODE-LE - SML-210FT	
D2001	262P828010	D-CHIP - MC2838-T112-1	
D2002	262P828010	D-CHIP - MC2838-T112-1	
D2003	262P828010	D-CHIP - MC2838-T112-1	
D2021	262P805050	D-CHIP - UDZS5.1B	
D2101	262P828010	D-CHIP - MC2838-T112-1	
D2102	262P828010	D-CHIP - MC2838-T112-1	
D2103	262P828010	D-CHIP - MC2838-T112-1	
D2121	262P805050	D-CHIP - UDZS5.1B	
D2E00	262P075010	DIODE - RSB6.8S	
D2E01	262P075010	DIODE - RSB6.8S	
D2J01	262P075010	DIODE - RSB6.8S	
D2J02	262P075010	DIODE - RSB6.8S	
D2J03	264P828010	D-CHIP - DAN202U/MA142WK	
D2J04	262P075010	DIODE - RSB6.8S	
D2J05	262P075010	DIODE - RSB6.8S	
D2J06	262P075010	DIODE - RSB6.8S	
D2J07	262P075010	DIODE - RSB6.8S	
D2J91	262P075010	DIODE - RSB6.8S	
D2J92	262P075010	DIODE - RSB6.8S	
D2J93	262P075010	DIODE - RSB6.8S	
D3E00	262P828010	D-CHIP - MC2838-T112-1	
D3E01	262P828010	D-CHIP - MC2838-T112-1	
D7A44	262P828010	D-CHIP - MC2838-T112-1	
D7A73	262P828010	D-CHIP - MC2838-T112-1	
D7K21	268P100010	DIODE-PHOTO - SFH235FA	
D7K22	262P828010	D-CHIP - MC2838-T112-1	
D7L20	262P075010	DIODE - RSB6.8S	
D7L21	264P212020	D-LED - LN31GPH	
D7L22	264P584020	DIODE-LE - SML1216W-C,D	
D7L23	264P584020	DIODE-LE - SML1216W-C,D	
D8280	262P828010	D-CHIP - MC2838-T112-1	
D8504	262P832010	D-LE-CHIP - CL-270F-CD-TS	
D8701	264P846010	D-CHIP - MA732	
D8702	264P846010	D-CHIP - MA732	
D8703	264P846010	D-CHIP - MA732	
D8704	264P846010	D-CHIP - MA732	
D8G05	262P830010	D-CHIP - MC2850-T111-1	
D8G07	262P830010	D-CHIP - MC2850-T111-1	
D8G08	262P830010	D-CHIP - MC2850-T111-1	
D8G10	262P830010	D-CHIP - MC2850-T111-1	
D8G11	262P830010	D-CHIP - MC2850-T111-1	
D8G12	262P830010	D-CHIP - MC2850-T111-1	
D9A00	262P031010	DIODE - D6SB80	
D9A01	262P031010	DIODE - D6SB80	
D9A02	264P045080	DIODE - 1S2076A/1S2471OM	
D9A03	262P805060	D-CHIP - UDZS5.6B	
D9A04	264P045080	DIODE - 1S2076A/1S2471OM	
D9A18	264P045080	DIODE - 1S2076A/1S2471OM	
D9A19	264P045080	DIODE - 1S2076A/1S2471OM	
D9A20	264P045080	DIODE - 1S2076A/1S2471OM	
D9A21	262P805080	D-CHIP - UDZS6.8B	
D9A23	262P085010	DIODE - 11EFS2N-TA2B5	
D9A24	262P085010	DIODE - 11EFS2N-TA2B5	
D9A25	262P085010	DIODE - 11EFS2N-TA2B5	
D9A26	**264P919010**	**DIODE - FCH20A10**	
D9A31	262P129010	DIODE - 30PRA20-FC5	
D9A32	262P129010	DIODE - 30PRA20-FC5	
D9A33	264P045080	DIODE - 1S2076A/1S2471OM	
D9A35	264P045080	DIODE - 1S2076A/1S2471OM	
D9A36	264P045080	DIODE - 1S2076A/1S2471OM	
D9A37	264P045080	DIODE - 1S2076A/1S2471OM	
D9A38	262P087010	D-CHIP - EC21QS04-TE12L	
D9A39	262P805060	D-CHIP - UDZS5.6B	

Ref #	Part #	Part Name & Description	[#]
D9A40	262P087010	D-CHIP - EC21QS04-TE12L	
D9A41	262P806060	D-CHIP - UDZS13B	
D9A42	262P087010	D-CHIP - EC21QS04-TE12L	
D9A43	262P805020	D-CHIP - UDZS3.9B	
D9A44	264P846010	D-CHIP - MA732	
D9A45	264P045080	DIODE - 1S2076A/1S2471OM	
D9A46	264P846010	D-CHIP - MA732	
D9A47	262P805060	D-CHIP - UDZS5.6B	
D9A48	264P045080	DIODE - 1S2076A/1S2471OM	
D9G01	262P090010	DIODE - M1FP3	
D9G02	262P805020	D-CHIP - UDZS3.9B	
D9G04	262P090010	DIODE - M1FP3	
D9G21	262P090010	DIODE - M1FP3	
D9G22	262P805020	D-CHIP - UDZS3.9B	
D9G24	262P090010	DIODE - M1FP3	
D9G41	262P090010	DIODE - M1FP3	
D9G42	262P805020	D-CHIP - UDZS3.9B	
D9G44	262P090010	DIODE - M1FP3	
D9G70	262P828010	D-CHIP - MC2838-T112-1	
D9G71	262P828010	D-CHIP - MC2838-T112-1	
D9G72	262P806070	D-CHIP - UDZS15B	
D9G73	262P806080	D-CHIP - UDZS16B	
D9J01	264P828010	D-CHIP - DAN202U/MA142WK	
D9J02	264P828010	D-CHIP - DAN202U/MA142WK	
D9J03	264P828010	D-CHIP - DAN202U/MA142WK	
D9J04	264P878010	D-CHIP - HZM27WA	
D9J05	264P878010	D-CHIP - HZM27WA	
D9J06	264P878010	D-CHIP - HZM27WA	
D9J07	262P087010	D-CHIP - EC21QS04-TE12L	
D9J08	262P087010	D-CHIP - EC21QS04-TE12L	
D9J09	262P087010	D-CHIP - EC21QS04-TE12L	
D9J10	264P878010	D-CHIP - HZM27WA	
D9J11	264P828010	D-CHIP - DAN202U/MA142WK	
D9J12	264P878010	D-CHIP - HZM27WA	
D9J13	264P828010	D-CHIP - DAN202U/MA142WK	
		COILS	
L101	409P865080	EMI-F-CHIP - BLM18PG6	
L103	409P923060	EMI-F-CHIP - BLM21B272S	
L104	409P923060	EMI-F-CHIP - BLM21B272S	
L105	409P923060	EMI-F-CHIP - BLM21B272S	
L106	409P923060	EMI-F-CHIP - BLM21B272S	
L107	409P923060	EMI-F-CHIP - BLM21B272S	
L108	325C420030	COIL-CHIP - 2.2MH-M	
L109	409P923060	EMI-F-CHIP - BLM21B272S	
L110	409P923060	EMI-F-CHIP - BLM21B272S	
L111	409P865070	EMI-F-CHIP - BLM11P300S	
L112	409P865070	EMI-F-CHIP - BLM11P300S	
L113	409P923060	EMI-F-CHIP - BLM21B272S	
L1501	409P777080	EMI-F-CHIP - BLM21P221S	
L1503	325C410050	COIL-CHIP - 2.2MH-J	
L1508	409P865070	EMI-F-CHIP - BLM11P300S	
L1509	409P865070	EMI-F-CHIP - BLM11P300S	
L1510	409P865070	EMI-F-CHIP - BLM11P300S	
L1511	409P865070	EMI-F-CHIP - BLM11P300S	
L1512	409P865070	EMI-F-CHIP - BLM11P300S	
L1513	409P865070	EMI-F-CHIP - BLM11P300S	
L1514	409P865070	EMI-F-CHIP - BLM11P300S	
L1515	409P865070	EMI-F-CHIP - BLM11P300S	

Ref #	Part #	Part Name & Description	[#]
L1516	409P865070	EMI-F-CHIP - BLM11P300S	
L1517	409P777080	EMI-F-CHIP - BLM21P221S	
L1519	409P865070	EMI-F-CHIP - BLM11P300S	
L1520	409P865070	EMI-F-CHIP - BLM11P300S	
L1521	409P865070	EMI-F-CHIP - BLM11P300S	
L1522	409P777080	EMI-F-CHIP - BLM21P221S	
L2018	409P777080	EMI-F-CHIP - BLM21P221S	
L2118	409P777080	EMI-F-CHIP - BLM21P221S	
L2201	409P777080	EMI-F-CHIP - BLM21P221S	
L2202	409P865020	EMI-F-CHIP - BLM11A601S	
L2203	409P865020	EMI-F-CHIP - BLM11A601S	
L2207	409P777080	EMI-F-CHIP - BLM21P221S	
L2213	409P777080	EMI-F-CHIP - BLM21P221S	
L2216	409P777080	EMI-F-CHIP - BLM21P221S	
L2219	409P777080	EMI-F-CHIP - BLM21P221S	
L2222	409P777080	EMI-F-CHIP - BLM21P221S	
L2235	409P777080	EMI-F-CHIP - BLM21P221S	
L2237	409P777080	EMI-F-CHIP - BLM21P221S	
L2238	409P777080	EMI-F-CHIP - BLM21P221S	
L2255	409P777080	EMI-F-CHIP - BLM21P221S	
L2287	409P777080	EMI-F-CHIP - BLM21P221S	
L2289	409P777080	EMI-F-CHIP - BLM21P221S	
L2294	409P777080	EMI-F-CHIP - BLM21P221S	
L2295	409P865020	EMI-F-CHIP - BLM11A601S	
L2296	409P865020	EMI-F-CHIP - BLM11A601S	
L2334	409P777080	EMI-F-CHIP - BLM21P221S	
L2337	409P777080	EMI-F-CHIP - BLM21P221S	
L2401	409P865020	EMI-F-CHIP - BLM11A601S	
L2402	409P865020	EMI-F-CHIP - BLM11A601S	
L2403	409P865020	EMI-F-CHIP - BLM11A601S	
L2404	409P865020	EMI-F-CHIP - BLM11A601S	
L2600	409P777080	EMI-F-CHIP - BLM21P221S	
L2C11	409P777080	EMI-F-CHIP - BLM21P221S	
L2E00	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2E01	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2J01	409P923060	EMI-F-CHIP - BLM21B272S	
L2J02	409P777080	EMI-F-CHIP - BLM21P221S	
L2J03	409P923060	EMI-F-CHIP - BLM21B272S	
L2J04	409P923060	EMI-F-CHIP - BLM21B272S	
L2J05	409P923060	EMI-F-CHIP - BLM21B272S	
L2J06	409P923060	EMI-F-CHIP - BLM21B272S	
L2J07	409P923060	EMI-F-CHIP - BLM21B272S	
L2J08	409P923060	EMI-F-CHIP - BLM21B272S	
L2J09	409P777080	EMI-F-CHIP - BLM21P221S	
L2K01	409P777080	EMI-F-CHIP - BLM21P221S	
L2K02	409P777080	EMI-F-CHIP - BLM21P221S	
L2K03	409P777080	EMI-F-CHIP - BLM21P221S	
L2K04	409P777080	EMI-F-CHIP - BLM21P221S	
L2K05	325C420070	COIL-CHIP - 10MH-K	
L2K06	409P777080	EMI-F-CHIP - BLM21P221S	
L2K07	409P777080	EMI-F-CHIP - BLM21P221S	
L2K08	409P777080	EMI-F-CHIP - BLM21P221S	
L2K09	409P777080	EMI-F-CHIP - BLM21P221S	
L2K10	325C420070	COIL-CHIP - 10MH-K	
L2K11	325C411030	COIL-CHIP - 10MH-J	
L2K12	325C411030	COIL-CHIP - 10MH-J	
L2K13	325C411030	COIL-CHIP - 10MH-J	
L2K14	325C411030	COIL-CHIP - 10MH-J	
L2K15	325C421040	COIL-CHIP - 150MH-K LOW-R	
L2K16	325C421040	COIL-CHIP - 150MH-K LOW-R	

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

Ref #	Part #	Part Name & Description	[#]
L2M00	321C114010	COIL-RF - 2200MH-J	
L2M01	325C411030	COIL-CHIP - 10MH-J	
L2M20	325C411030	COIL-CHIP - 10MH-J	
L2M21	321C114010	COIL-RF - 2200MH-J	
L3E25	325C502010	COIL-CHIP - SLF12575T-330M3R2-H	
L3E26	325C502010	COIL-CHIP - SLF12575T-330M3R2-H	
L3E51	411D009020	CORE-FERRITE - ZBF503D-01	
L3E52	411D009020	CORE-FERRITE - ZBF503D-01	
L3E60	409P865080	EMI-F-CHIP - BLM18PG6	
L7A16	409P777050	EMI-F-CHIP - BLM21B201S	
L7A73	409P865060	EMI-F-CHIP - BLM11B141S	
L7A89	409P777050	EMI-F-CHIP - BLM21B201S	
L7A99	409P777050	EMI-F-CHIP - BLM21B201S	
L7C84	409P865080	EMI-F-CHIP - BLM18PG6	
L7E00	325C420070	COIL-CHIP - 10MH-K	
L7E01	325C420070	COIL-CHIP - 10MH-K	
L7E02	409P777080	EMI-F-CHIP - BLM21P221S	
L7E03	409P865090	EMI-F-CHIP - BLM11A121S	
L7E04	409P865090	EMI-F-CHIP - BLM11A121S	
L7E05	409P865090	EMI-F-CHIP - BLM11A121S	
L7E06	409P865090	EMI-F-CHIP - BLM11A121S	
L7E13	409P865080	EMI-F-CHIP - BLM18PG6	
L7E17	409P777080	EMI-F-CHIP - BLM21P221S	
L7E18	409P777080	EMI-F-CHIP - BLM21P221S	
L7E19	409P777080	EMI-F-CHIP - BLM21P221S	
L7EA0	325C420070	COIL-CHIP - 10MH-K	
L7EB0	325C420070	COIL-CHIP - 10MH-K	
L7EB1	409P777080	EMI-F-CHIP - BLM21P221S	
L7EB2	409P777080	EMI-F-CHIP - BLM21P221S	
L7G01	325C420070	COIL-CHIP - 10MH-K	
L7G02	409P865080	EMI-F-CHIP - BLM18PG6	
L7G03	409P777080	EMI-F-CHIP - BLM21P221S	
L7G04	409P865080	EMI-F-CHIP - BLM18PG6	
L7G05	409P777080	EMI-F-CHIP - BLM21P221S	
L7G06	409P777080	EMI-F-CHIP - BLM21P221S	
L7G07	409P865080	EMI-F-CHIP - BLM18PG6	
L7G08	409P865080	EMI-F-CHIP - BLM18PG6	
L7G09	409P865080	EMI-F-CHIP - BLM18PG6	
L7G10	409P777080	EMI-F-CHIP - BLM21P221S	
L7G11	409P865080	EMI-F-CHIP - BLM18PG6	
L7G12	409P865020	EMI-F-CHIP - BLM11A601S	
L7G13	409P865080	EMI-F-CHIP - BLM18PG6	
L7K01	409P777080	EMI-F-CHIP - BLM21P221S	
L7P00	409P923060	EMI-F-CHIP - BLM21B272S	
L7P14	409P777050	EMI-F-CHIP - BLM21B201S	
L7P20	409P777050	EMI-F-CHIP - BLM21B201S	
L7R01	409P777080	EMI-F-CHIP - BLM21P221S	
L7R02	409P777080	EMI-F-CHIP - BLM21P221S	
L7T01	409P777080	EMI-F-CHIP - BLM21P221S	
L7T02	351P265010	COIL-CHOKE-CHIP - ACM2012	
L7T03	409P777080	EMI-F-CHIP - BLM21P221S	
L7T04	409P777080	EMI-F-CHIP - BLM21P221S	
L7T05	351P265010	COIL-CHOKE-CHIP - ACM2012	
L7T06	409P777080	EMI-F-CHIP - BLM21P221S	
L7T07	409P865060	EMI-F-CHIP - BLM11B141S	
L7T08	409P865060	EMI-F-CHIP - BLM11B141S	
L7T09	409P865060	EMI-F-CHIP - BLM11B141S	
L7T10	409P865060	EMI-F-CHIP - BLM11B141S	
L7T11	409P865060	EMI-F-CHIP - BLM11B141S	
L7T12	409P865060	EMI-F-CHIP - BLM11B141S	
L7T13	409P865060	EMI-F-CHIP - BLM11B141S	
L7T14	409P865060	EMI-F-CHIP - BLM11B141S	
L7T15	409P865060	EMI-F-CHIP - BLM11B141S	
L7T16	409P865060	EMI-F-CHIP - BLM11B141S	
L7T17	409P865060	EMI-F-CHIP - BLM11B141S	
L7T18	409P865060	EMI-F-CHIP - BLM11B141S	
L7T19	409P865060	EMI-F-CHIP - BLM11B141S	
L7T20	409P865060	EMI-F-CHIP - BLM11B141S	
L7T21	409P865060	EMI-F-CHIP - BLM11B141S	
L7T22	409P865060	EMI-F-CHIP - BLM11B141S	
L7T23	409P865060	EMI-F-CHIP - BLM11B141S	
L7T24	409P865060	EMI-F-CHIP - BLM11B141S	
L7T26	409P865060	EMI-F-CHIP - BLM11B141S	
L7T27	409P865060	EMI-F-CHIP - BLM11B141S	
L7T28	409P865060	EMI-F-CHIP - BLM11B141S	
L7T30	409P865060	EMI-F-CHIP - BLM11B141S	
L8001	409P865080	EMI-F-CHIP - BLM18PG6	
L8002	409P865080	EMI-F-CHIP - BLM18PG6	
L8003	409P865080	EMI-F-CHIP - BLM18PG6	
L8004	409P865080	EMI-F-CHIP - BLM18PG6	
L8005	409P865080	EMI-F-CHIP - BLM18PG6	
L8006	409P865080	EMI-F-CHIP - BLM18PG6	
L8007	409P865080	EMI-F-CHIP - BLM18PG6	
L8008	409P865080	EMI-F-CHIP - BLM18PG6	
L8009	409P777080	EMI-F-CHIP - BLM21P221S	
L8011	409P865080	EMI-F-CHIP - BLM18PG6	
L8012	409P865080	EMI-F-CHIP - BLM18PG6	
L8013	409P865080	EMI-F-CHIP - BLM18PG6	
L8280	409P865080	EMI-F-CHIP - BLM18PG6	
L8306	409P865080	EMI-F-CHIP - BLM18PG6	
L8307	409P865080	EMI-F-CHIP - BLM18PG6	
L8308	409P865080	EMI-F-CHIP - BLM18PG6	
L8309	409P865080	EMI-F-CHIP - BLM18PG6	
L8310	409P865080	EMI-F-CHIP - BLM18PG6	
L8313	409P865080	EMI-F-CHIP - BLM18PG6	
L8314	409P865080	EMI-F-CHIP - BLM18PG6	
L8318	409P865080	EMI-F-CHIP - BLM18PG6	
L8319	409P865080	EMI-F-CHIP - BLM18PG6	
L8320	409P865080	EMI-F-CHIP - BLM18PG6	
L83A1	409P865080	EMI-F-CHIP - BLM18PG6	
L83B3	325C501010	COIL-CHIP - ALQM21NNR47K10	
L8401	351P265020	COIL-CHIP - ACM2012-201-2P	
L8402	351P265020	COIL-CHIP - ACM2012-201-2P	
L8403	409P777080	EMI-F-CHIP - BLM21P221S	
L8404	409P777080	EMI-F-CHIP - BLM21P221S	
L8413	351P265020	COIL-CHIP - ACM2012-201-2P	
L8414	351P265020	COIL-CHIP - ACM2012-201-2P	
L8415	351P265020	COIL-CHIP - ACM2012-201-2P	
L8416	351P265020	COIL-CHIP - ACM2012-201-2P	
L8501	409P865080	EMI-F-CHIP - BLM18PG6	
L8502	409P777080	EMI-F-CHIP - BLM21P221S	
L8503	409P865080	EMI-F-CHIP - BLM18PG6	
L8504	409P865090	EMI-F-CHIP - BLM11A121S	
L8505	409P865080	EMI-F-CHIP - BLM18PG6	
L8507	409P865080	EMI-F-CHIP - BLM18PG6	
L8508	409P865080	EMI-F-CHIP - BLM18PG6	
L8509	409P865080	EMI-F-CHIP - BLM18PG6	
L8510	409P865090	EMI-F-CHIP - BLM11A121S	
L8511	409P865090	EMI-F-CHIP - BLM11A121S	
L8512	409P865090	EMI-F-CHIP - BLM11A121S	

MODEL: WD-52527 / WD-52528 / WD-62527 / WD-62528

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

Ref #	Part #	Part Name & Description	[#]
L8E01	409P777080	EMI-F-CHIP - BLM21P221S	
L8E05	409P777080	EMI-F-CHIP - BLM21P221S	
L8F01	409P777080	EMI-F-CHIP - BLM21P221S	
L8F02	409P777080	EMI-F-CHIP - BLM21P221S	
L8F03	409P777080	EMI-F-CHIP - BLM21P221S	
L8F04	409P777080	EMI-F-CHIP - BLM21P221S	
L8F05	409P777080	EMI-F-CHIP - BLM21P221S	
L8F06	409P777080	EMI-F-CHIP - BLM21P221S	
L8F07	409P777080	EMI-F-CHIP - BLM21P221S	
L8F08	409P777080	EMI-F-CHIP - BLM21P221S	
L8G01	409P777080	EMI-F-CHIP - BLM21P221S	
L8G02	409P777080	EMI-F-CHIP - BLM21P221S	
L8G05	409P777080	EMI-F-CHIP - BLM21P221S	
L8G06	409P777080	EMI-F-CHIP - BLM21P221S	
L8G10	409P865060	EMI-F-CHIP - BLM11B141S	
L8G11	409P865060	EMI-F-CHIP - BLM11B141S	
L8G12	409P865060	EMI-F-CHIP - BLM11B141S	
L8G13	409P865060	EMI-F-CHIP - BLM11B141S	
L8G14	409P865060	EMI-F-CHIP - BLM11B141S	
L8G15	409P865060	EMI-F-CHIP - BLM11B141S	
L8G16	409P865060	EMI-F-CHIP - BLM11B141S	
L8G17	409P865060	EMI-F-CHIP - BLM11B141S	
L8G18	409P865060	EMI-F-CHIP - BLM11B141S	
L8G19	409P865060	EMI-F-CHIP - BLM11B141S	
L8G20	409P865060	EMI-F-CHIP - BLM11B141S	
L8G30	409P865060	EMI-F-CHIP - BLM11B141S	
L8G31	409P865060	EMI-F-CHIP - BLM11B141S	
L8G32	409P865060	EMI-F-CHIP - BLM11B141S	
L8G33	409P865060	EMI-F-CHIP - BLM11B141S	
L8G35	409P865060	EMI-F-CHIP - BLM11B141S	
L8G36	409P865060	EMI-F-CHIP - BLM11B141S	
L8G37	409P865060	EMI-F-CHIP - BLM11B141S	
L8G38	409P865060	EMI-F-CHIP - BLM11B141S	
L8G39	409P865060	EMI-F-CHIP - BLM11B141S	
L8G40	409P865060	EMI-F-CHIP - BLM11B141S	
L8G41	409P865060	EMI-F-CHIP - BLM11B141S	
L8G42	409P865060	EMI-F-CHIP - BLM11B141S	
L8G43	409P865060	EMI-F-CHIP - BLM11B141S	
L8G44	409P865060	EMI-F-CHIP - BLM11B141S	
L8G45	409P865060	EMI-F-CHIP - BLM11B141S	
L9A10	321C151070	COIL-RF - 22MH-K	
L9A19	321C141010	COIL-RF - 6.8MH-M	
L9A20	321C141010	COIL-RF - 6.8MH-M	
L9A21	321C141070	COIL-RF - 22MH-K	
L9A30	321C141070	COIL-RF - 22MH-K	
L9A31	321C140060	COIL-RF - 2.7MH-M	
L9A32	321C140060	COIL-RF - 2.7MH-M	
L9A33	351P277030	COIL-CHOKE-CHIP - GSRH127-7R6M	
L9A34	321C141070	COIL-RF - 22MH-K	
L9A35	321C141010	COIL-RF - 6.8MH-M	
L9A36	321C141070	COIL-RF - 22MH-K	
L9A37	351P277090	COIL-CHOKE-CHIP - GSRH127-221M	
L9A38	321C141070	COIL-RF - 22MH-K	
L9A39	351P277070	COIL-CHOKE-CHIP - GSRH127-101M	
L9A40	321C141030	COIL-RF - 10MH-K	
L9A41	351P277070	COIL-CHOKE-CHIP - GSRH127-101M	
L9A42	321C141030	COIL-RF - 10MH-K	
L9A43	321C141030	COIL-RF - 10MH-K	
L9A44	321C141030	COIL-RF - 10MH-K	
L9A45	321C141030	COIL-RF - 10MH-K	

Ref #	Part #	Part Name & Description	[#]
L9C51	409P777080	EMI-F-CHIP - BLM21P221S	
L9C81	409P777080	EMI-F-CHIP - BLM21P221S	
L9D00	**351P268010**	**LINE-FILTER - HF3545-502Y5R0-TXXBH**	
L9D02	**351P266020**	**LINE-FILTER - ELF22V025A**	
L9D06	**351P285010**	**LINE-FILTER - UF232754-143Y0R7-01**	
L9G01	321C141070	COIL-RF - 22MH-K	
L9G02	351P276040	COIL-CHOKE-CHIP - GSRH125-4R0M	
L9G03	321C140060	COIL-RF - 2.7MH-M	
L9G04	321C140060	COIL-RF - 2.7MH-M	
L9G21	321C141030	COIL-RF - 10MH-K	
L9G22	351P276040	COIL-CHOKE-CHIP - GSRH125-4R0M	
L9G23	321C141010	COIL-RF - 6.8MH-M	
L9G24	321C141010	COIL-RF - 6.8MH-M	
L9G25	321C141010	COIL-RF - 6.8MH-M	
L9G41	321C141070	COIL-RF - 22MH-K	
L9G42	351P277030	COIL-CHOKE-CHIP - GSRH127-7R6M	
L9G43	321C140060	COIL-RF - 2.7MH-M	
L9G44	321C140060	COIL-RF - 2.7MH-M	
L9G70	409P777080	EMI-F-CHIP - BLM21P221S	
L9H01	409P777080	EMI-F-CHIP - BLM21P221S	
L9H02	409P777080	EMI-F-CHIP - BLM21P221S	
L9J01	351P244010	COIL-CHOKE - CD-C-1010-101	
L9J02	351P244010	COIL-CHOKE - CD-C-1010-101	
L9J03	351P244010	COIL-CHOKE - CD-C-1010-101	
L9J04	321C142030	COIL-RF - 68MH-K	
L9J05	321C142030	COIL-RF - 68MH-K	
L9J06	321C142030	COIL-RF - 68MH-K	
LC8701	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8702	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8703	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8704	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8705	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8706	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8707	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8708	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8709	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8710	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8711	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8712	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8713	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8714	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8715	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8716	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8717	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8718	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8719	409P944010	EMI-F-CHIP - NFL21SP107X1	
LC8720	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8721	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8722	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8723	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8724	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8725	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
T2001	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2002	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2003	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2004	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2101	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2102	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2103	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2104	409P961010	CHIP-FILTER - ACM2012D-9002P	

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

Ref #	Part #	Part Name & Description	[#]

TRANSFORMERS

T9A10 350P833010 TRANS-PWR - SRW42EC-U15V117

VARIABLE RESISTORS

RV9D00 265P100020 VAR - ERZV10D271CS
RV9D01 265P100020 VAR - ERZV10D271CS

RESISTORS

CHIP Type Resistors (Listed by Value)

Part No.	Value	Part No.	Value
103P509050	1/16W 0OHM	103P492070	1/16W 1.2K-F
103P409050	1/8W 0OHM	103P502060	1/16W 1.2K-J
103P408040	1/10W 2.2-J	103P492080	1/16W 1.3K-F
103P508040	1/16W 2.2-J	103P492090	1/16W 1.5K-F
103P488080	1/4W 4.7-J	103P502070	1/16W 1.5K-J
103P409000	1/10W 6.8-J	103P493010	1/16W 1.8K-F
103P500010	1/16W 10-J	103P502080	1/16W 1.8K-J
103P400020	1/10W 12-J	103P813020	1/16W 2K-D
103P400050	1/10W 22-J	103P493020	1/16W 2K-F
103P500050	1/16W 22-J	103P493030	1/16W 2.2K-F
103P910050	1/16W 22-Jx4	103P502090	1/16W 2.2K-J
103P500060	1/16W 27-J	103P493050	1/16W 2.7K-F
103P500070	1/16W 33-J	103P503000	1/16W 2.7K-J
103P910070	1/16W 33-Jx4	103P493060	1/16W 3K-F
103P793080	1/16W 36F	103P493070	1/16W 3.3K-F
103P500080	1/16W 39-J	103P503010	1/16W 3.3K-J
103P910090	1/16W 47-J	103P493080	1/16W 3.6K-F
103P400090	1/10W 47-J	103P493090	1/16W 3.9K-F
103P794010	1/16W 47-F	103P503020	1/16W 3.9K-J
103P500090	1/16W 47-J	103P496040	1/16W 43K-F
103P401000	1/10W 56-J	103P494010	1/16W 4.7K-F
103P844030	1/16W 56-D	103P503030	1/16W 4.7K-J
103P501000	1/16W 56-J	103P494020	1/16W 5.1K-F
103P911000	1/16W 56-Jx4	103P494030	1/16W 5.6K-F
103P501010	1/16W 68-J	103P503040	1/16W 5.6K-J
103P794060	1/16W 75-F	103P814040	1/16W 6.2K-D
103P509090	1/16W 75-J	103P494050	1/16W 6.8K-F
103P489090	1/4W 75-J	103P494070	1/16W 8.2K-F
103P794070	1/16W 82-F	103P503060	1/16W 8.2K-J
103P501020	1/16W 82-J	103P494080	1/16W 9.1K-F
103P401030	1/10W 100-J	103P494090	1/16W 10K-F
103P490010	1/16W 100F	103P503070	1/16W 10K-J
103P501030	1/16W 100-J	103P913070	1/16W 10K-Jx4
103P401050	1/10W 150-J	103P495000	1/16W 11K-F
103P810050	1/16W 150-D	103P495010	1/16W 12K-F
103P501050	1/16W 150-J	103P503080	1/16W 12K-J
103P501060	1/16W 180-J	103P495020	1/16W 13K-F
103P490080	1/16W 200-F	103P495030	1/16W 15K-F
103P490090	1/16W 220-F	103P503090	1/16W 15K-J
103P501070	1/16W 220-J	103P495070	1/16W 22K-F
103P911070	1/16W 220-Jx4	103P504010	1/16W 22K-J
103P491010	1/16W 270-F	103P495090	1/16W 27K-F
103P481070	1/4W 220-J	103P504020	1/16W 27K-J
103P470090	1/8W 220-F	103P496000	1/16W 30K-F
103P501080	1/16W 270-J	103P496010	1/16W 33K-F
103P491020	1/16W 300-F	103P504030	1/16W 33K-J
103P501090	1/16W 330-J	103P504040	1/16W 39K-J
103P491040	1/16W 360-F	103P504050	1/16W 47K-J

Ref #	Part #	Part Name & Description	[#]

Part No.	Value	Part No.	Value
103P491050	1/16W 390-F	103P496070	1/16W 56K-F
103P502000	1/16W 390-J	103P504060	1/16W 56K-J
103P491060	1/16W 430-F	103P497000	1/16W 68K-F
103P502010	1/16W 470-J	103P496090	1/16W 68K-F
103P471070	1/8W 470-F	103P504070	1/16W 68K-J
103P491080	1/16W 510-F	103P504080	1/16W 82K-J
103P491090	1/16W 560-F	103P504090	1/16W 100K-J
103P502020	1/16W 560-J	103P505000	1/16W 120K-J
103P471090	1/8W 560-F	103P497080	1/16W 160K-F
103P492000	1/16W 620-F	103P505020	1/16W 180K-J
103P492010	1/16W 680-F	103P497090	1/16W 180K-F
103P502030	1/16W 680-J	103P505030	1/16W 220K-J
103P492030	1/16W 820-F	103P498020	1/16W 240K-F
103P502040	1/16W 820-J	103P498030	1/16W 270K-F
103P492040	1/16W 910-F	103P505060	1/16W 390K-J
103P492050	1/16W 1K-F	103P505070	1/16W 470K-J
103P502050	1/16W 1K-J	103P499010	1/16W 560K-F
103P492060	1/16W 1.1K-F	103P506000	1/16W 820K-J
103P472070	1/10W 1.2K-F	103P506010	1/16W 1M-J

RESISTORS

Conventional Resistors (By Ref #)

Ref #	Part #	Part Name & Description	[#]
R3E28	103C170050	R-METAL - 1W 22-J	
R3E32	103C170050	R-METAL - 1W 22-J	
R9A01	109P179010	R-CEMENT-PLATE - 6.8-J	
R9A02	109P179010	R-CEMENT-PLATE - 6.8-J	
R9A03	**109C010010**	**R-COMP - 1/2W 1M-K**	
R9A05	**109C010010**	**R-COMP - 1/2W 1M-K**	
R9A06	**109C010010**	**R-COMP - 1/2W 1M-K**	
R9A09	103P145030	R-CARBON - 1/2W 220K-J	
R9A11	103P145030	R-CARBON - 1/2W 220K-J	
R9A13	103C184090	R-METAL - 2W 100K-J	
R9A14	103C184090	R-METAL - 2W 100K-J	
R9A19	103C184090	R-METAL - 2W 100K-J	
R9A20	103P331080	R-CARBON-25 - 1/4W 270-J	
R9A21	103C187030	R-METAL - 2W 0.27-J	
R9A22	103C187030	R-METAL - 2W 0.27-J	
R9A25	103P142050	R-CARBON - 1/2W 1K-J	
R9A26	109D151060	R-CARBON - 1/4W 68-J	
R9A51	109D151080	R-CARBON - 1/4W 220-J	
R9A52	109D151080	R-CARBON - 1/4W 220-J	
R9A54	109D151080	R-CARBON - 1/4W 220-J	
R9A55	109D151080	R-CARBON - 1/4W 220-J	
R9A56	109D151080	R-CARBON - 1/4W 220-J	
R9A76	103C392050	R-METAL-P - 3W 1K-J	
R9A77	103C392050	R-METAL-P - 3W 1K-J	
R9C00	103C398070	R-METAL-P - 3W 3.9-K	
R9C10	103C398070	R-METAL-P - 3W 3.9-K	
R9C20	103C399000	R-METAL-P - 3W 6.8K	
R9C71	103C398010	R-METAL-P - 3W 1.2-K	
R9D00	109D036020	R-COMP - 1/2W 4.7M-K	

CAPACITORS

CHIP Type Capacitors (Listed by Value)

Part No.	Value	Part No.	Value
181P826010	50V 1M-M 105C	154P344050	CH50V 270P-J
181P802040	16V 2.2M-M	154P344070	CH50V 330P-J

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

Ref #	Part #	Part Name & Description	[#]

Part No.	Value	Part No.	Value
181P806020	50V 2.2M-M	154P345010	CH50V 470P-J
181P806030	50V 3.3M-M	141P140050	B50V 470P-K
181P826030	50V 3.3M-M 105C	141P140060	B50V 560P-K
181P808070	16V 4.7M-M	141P140070	B50V 680P-K
181P824090	35V 4.7M-M 105C	154P345050	CH25V 680P-J
154P340060	CK50V 5P-C	141P140090	B50V 1000P-K
154P340070	CH50V 6P-C	154P345090	CH25V 1000P-J
181P810070	10V 10M-M BP	141P141010	B50V 1500P-K
181P802030	16V 10M-M	141P141030	B50V 2200P-K
181P822030	16V 10M-M 105C	154P326080	SL50V 2200P-J
181P826050	50V 10M-M 105C	141P141040	B50V 2700P-K
181P825000	35V 10M-M 105C	141P141050	B50V 3300P-K
154P341010	CH50V 10P-C	141P141070	B50V 4700P-K
154P351020	SL50V 10P-J	141P141080	B50V 5600P-K
154P341030	CH50V 12P-J	141P142000	B50V 8200P-K
154P341050	CH50V 15P-J	172P391030	16V 0.01M-J
154P341070	CH50V 18P-J	141P142010	B50V 0.01M-K
181P820010	6.3V 22M-M 105C	141P133080	B50V 0.01M-Z
154P341090	CH50V 22P-J	141P143080	F50V 0.01M-Z
154P342010	CH50V 27P-J	141P132030	B50V 0.015M-K
181P832030	16V 33M-M BP 105C	141P142040	B50/25/16V 0.018M-K
181P802060	16V 47M-M	141P142090	B25V 0.047M-K
181P822060	16V 47M-M 105C	141P144010	F50V 0.047M-Z
181P800030	6.3V 47M-M	141P146080	B10V 0.47M-K
181P820030	6.3V 47M-M 105C	141P139090	B16V 0.47M-K
154P342070	CH50V 47P-J	141P144050	F16V 0.47M-Z
154P342090	CH50V 56P-J	172P392030	16V 0.068M-J
154P343010	CH50V 68P-J	141P143020	B16V 0.082M-K
181P824010	25V 100M-M 105C	141P143030	B16V 0.1M-K
181P828000	4V 100M-M 105C	141P139030	B25V 0.1M-K
181P800040	6.3V 100M-M	141P144020	F25V 0.1M-Z
181P820040	6.3V 100M-M 105C	141P134090	F50V 0.1M-Z
181P802070	16V 100M-M	141P135000	F25V 0.22M-Z
181P822070	16V 100M-M 105C	141P144040	F25V/16V 0.33M-Z
154P343050	CH50V 100P-J	141P138080	B25V 0.33M-K
154P343070	CH50V 120P-J	141P135020	F25V 0.47M-Z
154P343090	CH50V 150P-J	141P147020	B10V/6.3V 1M-K
154P344010	CH50V 180P-J	141P134070	B16V 1M-K
181P828010	4V 220M-M 105C	141P135070	F16V 1M-Z
181P820050	6.3V 220M-M 105C	141P144060	F25V 1M-Z
141P140010	B50V 220P-K	189P245010	1 ufd V25
154P344030	CH50V 220P-J	189P243010	10 ufd 6.3V
154P354040	SL50V 220P-J	189P243020	10 ufd 25V

CAPACITORS AND TRIMMERS

Conventional Capacitors (By Ref #)

Ref #	Part #	Part Name & Description	[#]
C112	181P181000	C-ELEC - 10V 330M-M 105C	
C117	181P181000	C-ELEC - 10V 330M-M 105C	
C2E01	181P352050	C-ELEC - 16V 220M-M	
C2L05	181P355050	C-ELEC - 50V 10M-M	
C2L06	181P352010	C-ELEC - 16V 22M-M	
C2L07	181P355050	C-ELEC - 50V 10M-M	
C2L08	181P122070	C-ELEC-NP - 25V 10M-M	
C2L09	181P355050	C-ELEC - 50V 10M-M	
C2L10	181P122070	C-ELEC-NP - 25V 10M-M	
C2L11	181P355050	C-ELEC - 50V 10M-M	
C2L12	181P122070	C-ELEC-NP - 25V 10M-M	
C2L13	181P355050	C-ELEC - 50V 10M-M	
C2L14	181P122070	C-ELEC-NP - 25V 10M-M	
C2L17	181P352040	C-ELEC - 16V 100M-M	
C2L18	181P352010	C-ELEC - 16V 22M-M	
C2L19	181P212060	C-ELEC - 16V 47M-M	
C3E50	181P358070	C-ELEC - 63V 22M-M	
C3E51	181P354090	C-ELEC - 35V 470M-M	
C3E52	181P354090	C-ELEC - 35V 470M-M	
C3E53	181P354090	C-ELEC - 35V 470M-M	
C3E54	181P354090	C-ELEC - 35V 470M-M	
C3J23	181P352030	C-ELEC - 16V 47M-M	
C3J25	181P355060	C-ELEC - 50V 22M-M	
C3J26	181P212060	C-ELEC - 16V 47M-M	
C7E01	181P350060	C-ELEC - 3V 1000M-M	
C7K01	181P352030	C-ELEC - 16V 47M-M	
C7K21	181P355050	C-ELEC - 50V 10M-M	
C7K23	181P352030	C-ELEC - 16V 47M-M	
C7K28	181P355050	C-ELEC - 50V 10M-M	
C8281	189P197020	C-ELE-DBL-LA - FM0H473Z/EECS5R5T473Z	
C9A00	189P185090	C-CER - AC250V E2200P-M	
C9A01	189P185090	C-CER - AC250V E2200P-M	
C9A02	185D122050	C-ELEC - H200V 1000M-M	
C9A03	185D122050	C-ELEC - H200V 1000M-M	
C9A04	185D127040	C-ELEC - H450V 150M-M 105C	
C9A05	189P185090	C-CER - AC250V E2200P-M	
C9A06	189P185090	C-CER - AC250V E2200P-M	
C9A08	189P185090	C-CER - AC250V E2200P-M	
C9A09	189P185090	C-CER - AC250V E2200P-M	
C9A10	**189P185090**	**C-CER - AC250V E2200P-M**	
C9A11	189P185090	C-CER - AC250V E2200P-M	
C9A13	**189P152080**	**C-M-POLY - AC125/250V 0.015M-M**	
C9A14	**189P152080**	**C-M-POLY - AC125/250V 0.015M-M**	
C9A15	**189P185070**	**C-CER - AC250V E1000P-M**	
C9A16	**189P185070**	**C-CER - AC250V E1000P-M**	
C9A19	154P400060	C-CER - B1KV 1500P-K	
C9A21	**181P185060**	**C-ELEC - 50V 10M-M 105C**	
C9A25	172P331010	C-POLY - 50V 6800P-J	
C9A26	185D122050	C-ELEC - H200V 1000M-M	
C9A27	185D122050	C-ELEC - H200V 1000M-M	
C9A28	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A29	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A30	181P355010	C-ELEC - 50V 1M-M	
C9A31	142P010090	C-CER - B500V 470P-K	
C9A32	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A33	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A35	181P735010	C-ELEC - 25V 470M-M	
C9A36	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A37	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A38	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A39	181P184070	C-ELEC - 35V 2200M-M	
C9A40	181P184070	C-ELEC - 35V 2200M-M	
C9A43	172P166070	C-TF - 50V 0.22M-J	
C9A45	181P351070	C-ELEC - 10V 470M-M	
C9A46	142P010090	C-CER - B500V 470P-K	
C9A47	142P010090	C-CER - B500V 470P-K	
C9A53	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A65	181P732000	C-ELEC - 10V 680M-M 105C	
C9A66	181P732000	C-ELEC - 10V 680M-M 105C	

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

Ref #	Part #	Part Name & Description	[#]
C9A68	181P734070	C-ELEC - 25V 100M-M 105C LOW-R	
C9A70	181P734070	C-ELEC - 25V 100M-M 105C LOW-R	
C9A71	181P352070	C-ELEC - 16V 470M-M	
C9A72	181P738010	C-ELEC - 50V 220M-M 105C LOW-R	
C9A74	181P735010	C-ELEC - 25V 470M-M	
C9A75	181P352070	C-ELEC - 16V 470M-M	
C9A76	181P738010	C-ELEC - 50V 220M-M 105C LOW-R	
C9A78	181P735010	C-ELEC - 25V 470M-M	
C9A79	181P352070	C-ELEC - 16V 470M-M	
C9A90	154P400060	C-CER - B1KV 1500P-K	
C9A91	154P400060	C-CER - B1KV 1500P-K	
C9C51	181P351070	C-ELEC - 10V 470M-M	
C9D00	**189P153040**	**C-M-POLY - 250VAC 0.1M-M**	
C9D01	**189P153040**	**C-M-POLY - 250VAC 0.1M-M**	
C9D02	**189P153040**	**C-M-POLY - 250VAC 0.1M-M**	
C9D03	**189P153040**	**C-M-POLY - 250VAC 0.1M-M**	
C9G04	181P735020	C-ELEC - 25V 1000M-M 105C	
C9G17	181P732000	C-ELEC - 10V 680M-M 105C	
C9G18	181P732000	C-ELEC - 10V 680M-M 105C	
C9G24	181P735020	C-ELEC - 25V 1000M-M 105C	
C9G37	181P732000	C-ELEC - 10V 680M-M 105C	
C9G38	181P732000	C-ELEC - 10V 680M-M 105C	
C9G44	181P735020	C-ELEC - 25V 1000M-M 105C	
C9G57	181P732000	C-ELEC - 10V 680M-M 105C	
C9G58	181P732000	C-ELEC - 10V 680M-M 105C	
C9J01	181P356020	C-ELEC - 50V 470M-M	
C9J02	181P738010	C-ELEC - 50V 220M-M 105C LOW-R	
C9J04	181P356020	C-ELEC - 50V 470M-M	
C9J05	181P738010	C-ELEC - 50V 220M-M 105C LOW-R	
C9J07	181P356020	C-ELEC - 50V 470M-M	
C9J08	181P738010	C-ELEC - 50V 220M-M 105C LOW-R	
C9J15	181P355050	C-ELEC - 50V 10M-M	
C9J16	181P355050	C-ELEC - 50V 10M-M	
SF1501	296P171010	SAW-FILTER - X6892D	
SF1503	296P173010	SAW-FILTER - MKT47.3MC110P	

SWITCHES

Ref #	Part #	Part Name & Description	[#]
S7F00	434P004010	SW-LEVER	
S7F01	434P004010	SW-LEVER	
S7L20	432P109010	SW-KEY BOARD - KSHS611BT	
S7L21	432P109010	SW-KEY BOARD - KSHS611BT	
S7L22	432P109010	SW-KEY BOARD - KSHS611BT	
S7L23	432P109010	SW-KEY BOARD - KSHS611BT	
S7L24	432P109010	SW-KEY BOARD - KSHS611BT	
S7L25	432P109010	SW-KEY BOARD - KSHS611BT	
S7L26	432P109010	SW-KEY BOARD - KSHS611BT	
S7L27	432P109010	SW-KEY BOARD - KSHS611BT	
S7L28	432P109010	SW-KEY BOARD - KSHS611BT	
S7L29	432P109010	SW-KEY BOARD - KSHS611BT	

MISCELLANEOUS

Ref #	Part #	Part Name & Description	[#]
	096Z465080	TAPE-LENS	
	246C351060	AC POWER CORD	
	246C524010	CABLE-DVI	
	299P254010	IR-EMITTER 4-HEAD - T-IR-0	bd
	299P287010	FAN-COOLING - BALLAST	
	299P288010	FAN-COOLING - CHASSIS/LAMP	
	299P295010	FAN-COOLING - L/V FAN (Induction)	
	299p296010	FAN-COOLING - PBS	
	305P703020	2RF-SWITCH	
	411D044020	CORE-FERRITE - ZCAT2032-0930	
	411D062010	CORE-FERRITE - ZCAT1518-0730	
	411D063020	CORE-FERRITE - CAT3035	
	411P026010	CORE-FERRITE - ZCAT2017	
	480P080010	SPEAKER - 10W	
	598D417020	PLATE - RF-SWITCH	
	620D171010	FILTER - DUST	
	622C208020	MIRROR - HOLDER - TOP	cd
	635B114010	MIRROR - BRACKET - TOP	ab
	635B114020	MIRROR - BRACKET - TOP	cd
	635B115020	FRAME-LOCK - PLATE	cd
	635B118010	MOUNTING BRACKET - CABINET	ab
	641B999010	MIRROR - HOLDER - SIDE	cd
	702A462010	BOARD - TERMINAL	
	704B205010	KNOB - CONTROL	
	704B207010	BUTTON - RESET	
	752B156010	COVER - LAMP	
	752B157010	COVER - FILTER	
	752B165010	COVER - FILTER HOLDER	
	760A017010	INLAY - TERMINAL	ac
	760A017020	INLAY - TERMINAL	bd
	761A257010	GRILLE - SPEAKER	a
	761A257020	GRILLE - SPEAKER	b
	761A265010	GRILLE - SPEAKER	c
	761A265020	GRILLE - SPEAKER	d
	761A267010	COVER - BASE	
	767D075020	MIRROR - 62"	cd
	767D077010	MIRROR - 52"	ab
	915PO28010	**LAMP CARTRIDGE**	
	938P015010	**OPTICAL-ENGINE 52"**	**ab**
	938P015020	**OPTICAL-ENGINE 62"**	**cd**
AG9D00	299P220020	SURGE-SUPPRESSOR - DSS-302M	
F9A01	**283P144080**	**FUSE - 125V 5A**	
F9A03	**283D158010**	**FUSE - 125V 25A**	
F9A04	**283P144080**	**FUSE - 125V 5A**	
F9A05	**283P144080**	**FUSE - 125V 5A**	
F9A06	**283P144070**	**FUSE - 125V 3A**	
F9A07	**283P144080**	**FUSE - 125V 5A**	
F9A08	**283P144080**	**FUSE - 125V 5A**	
F9A09	**283P144080**	**FUSE - 125V 5A**	
F9D00	**283D131040**	**FUSE - S10A 125A**	
F9E10	**283P075090**	**FUSE-CHIP - FCC20252ADTP**	
F9E11	**283P075090**	**FUSE-CHIP - FCC20252ADTP**	
F9G01	**283P163050**	**FUSE-WIRE-CHIP - 125V 6.3A**	
F9G21	**283P163050**	**FUSE-WIRE-CHIP - 125V 6.3A**	
F9G41	**283P163050**	**FUSE-WIRE-CHIP - 125V 6.3A**	
J2001	452C410010	CONNECTOR-HDMI	
J2101	452C410010	CONNECTOR-HDMI	
J7T01	452C401010	CONNECTOR-USB	
J7T02	452C401010	CONNECTOR-USB	
J8301	440C393030	PIN-JACK-BOARD-1P	
J8401	451P246010	JACK-1394 - MINI	
J8402	451P246010	JACK-1394 - MINI	
K9A10	**287P111030**	**RELAY-POWER - LKS1AF-12V**	
K9A20	**287P111030**	**RELAY-POWER - LKS1AF-12V**	
K9A21	**287P111030**	**RELAY-POWER - LKS1AF-12V**	
PB	452C411020	CONNECTOR PCCARD	
PC9A10	**268P115010**	**PHOTO-COUPLIER - SHF2505FA**	
PC9A21	**268P115010**	**PHOTO-COUPLIER - SHF2505FA**	

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

Ref #	Part #	Part Name & Description	[#]
PJ2E00	451C268010	JACK MICROPHONE 1P	
PJ2E01	451C268010	JACK MICROPHONE 1P	
PJ2J01	440P108010	PIN-JACK-BOARD	
PJ2J02	440P110010	PIN-JACK-BOARD	
PJ2J03	440P110010	PIN-JACK-BOARD	
PJ2J04	440P107010	PIN-JACK-BOARD	bd
PJ2J05	440P107010	PIN-JACK-BOARD	
PJ2J06	440P107010	PIN-JACK-BOARD	
PJ2J07	440P109010	PIN-JACK-BOARD	
PJ2J11	440C412030	PIN-JACK-BOARD-3P-1S	
	299P297010	THERMISTOR:PBP-43-S20	
	299P301010	THERNOSTAT:U12-110	
TU100	**295P523030**	**TUNER-NTSC/ATSC**	
TU101	**295P523030**	**TUNER-NTSC/ATSC**	
TU102	**295P524020**	**TUNER-OOB**	
X1501	285P459070	QTZ-CRYST - 25.14MHZ	
X2296	285P459090	QTZ-CRYST - 28.322MHZ	
X7A13	285P459040	QTZ-CRYST - 16MHZ	
X7G01	285P431030	QTZ-CRYST - 81MHZ	
X7P09	285P459020	QTZ-CRYST - 8MHZ	
X7R01	285P459010	QTZ-CRYST - 3.579545MHZ	
X7R02	285P459030	QTZ-CRYST - 10MHZ	
X8001	285P455040	QTZ-CRYST - 26.1521MHZ	
X8201	285P403020	QTZ-CRYST - 32.768MHZ	
X8301	285P464010	QTZ-CRYST - 7.3728MHZ	
X8402	285P455030	QTZ-CRYST - 24.576MHZ	
X8403	285P455030	QTZ-CRYST - 24.576MHZ	
X8501	285P455010	QTZ-CRYST - 18.24MHZ	
X8G01	299P284010	CER-OSC - CSTCE20M0V51-R0	
Z7K01	**938P005010**	**UNIT-PREAMP: GP1UM283QK**	

PRINTED CIRCUIT BOARDS

Ref #	Part #	Part Name & Description	[#]
	930B933001	ASSY-PWB-POWER1	
	934C150001	ASSY-PWB-TERMINAL	ac
	934C150002	ASSY-PWB-TERMINAL	bd
	934C151001	ASSY-PWB-MICRO	
	934C152001	ASSY-PWB-DM	
	934C153001	ASSY-PWB-V28FMT	
	934C154001	ASSY-PWB-RISER	
	934C155001	ASSY-PWB-INTERFACE	
	935D818001	ASSY-PWB-PREAMP	
	935D819001	ASSY-PWB-DEMOD1	
	935D820001	ASSY-PWB-E2P	
	935D821001	ASSY-PWB-CONTROL	
	935D822001	ASSY-PWB-FRONT	
	935D848001	ASSY-PWB-SW-FILTER	
	935D849001	ASSY-PWB-SW-LAMP	
	938P016010	UNIT-POWER-LAMP	
	955B312001	ASSY-CHASSIS	ac
	955B312002	ASSY-CHASSIS	bd
	938P042010	PWB-MOTOR-DRIVER	

COSMETIC PARTS

Ref #	Part #	Part Name & Description	[#]
	716C044010	BADGE - BRAND	
	761C751010	DOOR - A/V	

ACCESSORIES

Ref #	Part #	Part Name & Description	[#]
	242D483020	IR-MOUSE	ac
	242D540070	CABLE-RF	
	290P122020	REMOTE-CONTROL - V28	ac
	290P123020	REMOTE-CONTROL - V28++	bd
	I/TV WD52527	GUIDE - TV	
	I/QR WD52527	GUIDE - QUICK REFERENCE	
	I/B WD52527	GUIDE - OWNERS	

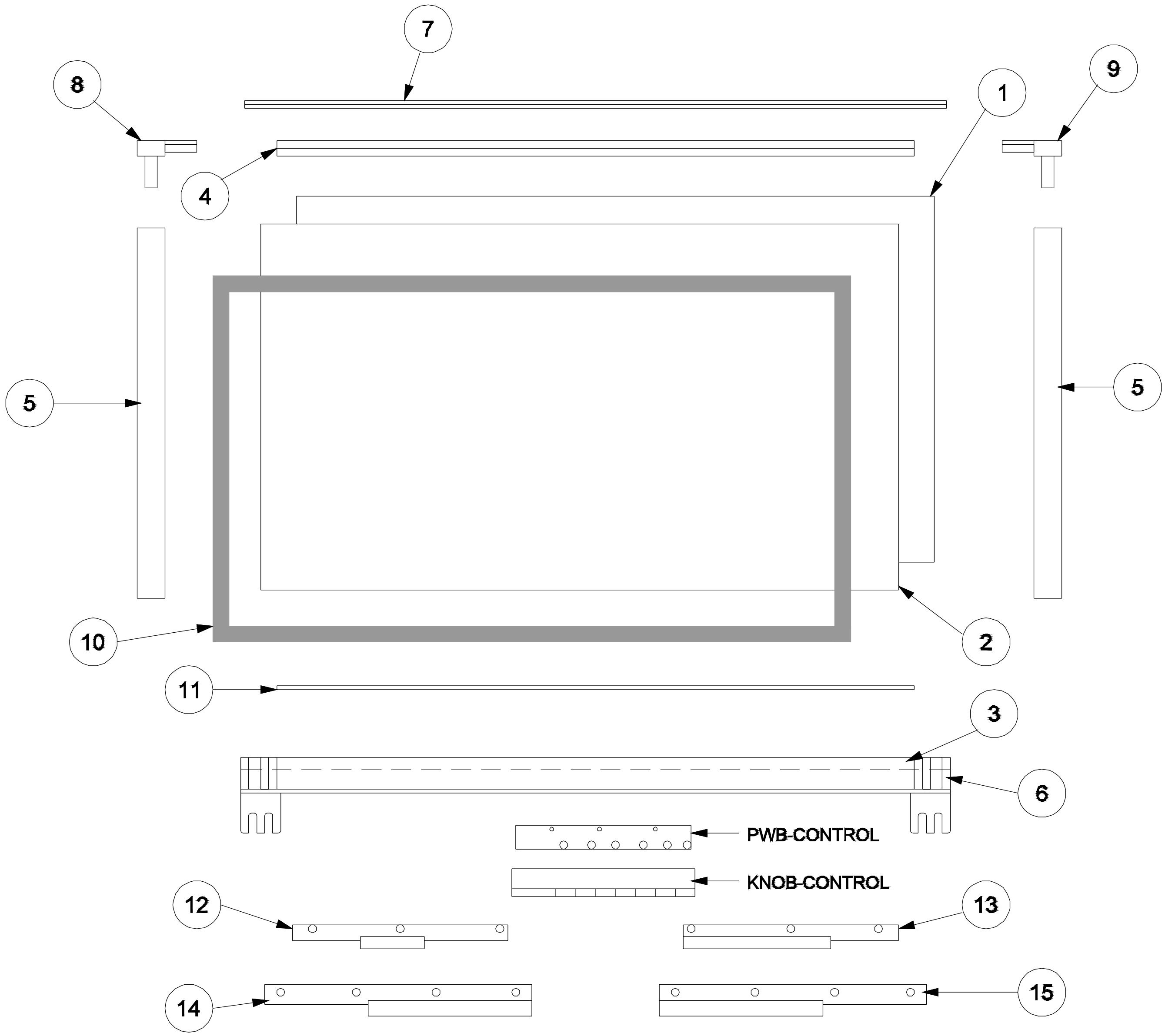
MODEL: WD-52527 / WD-52528 / WD-62527 / WD-62528

[#] Model Legend: [a] WD-52527, [b] WD-52528, [c] WD-62527 [d] WD-62528

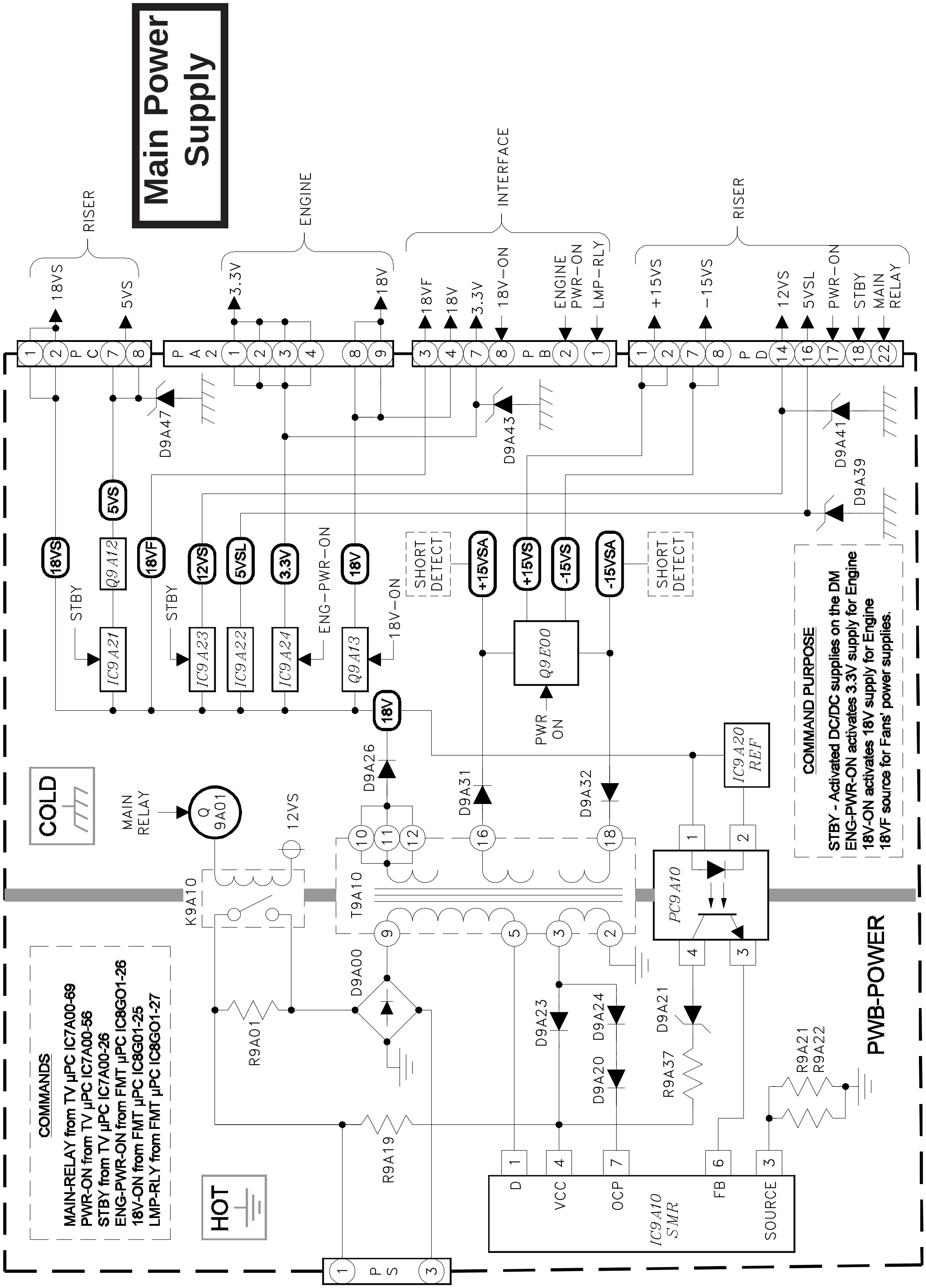
SCREEN PARTS

Ref #	Part #	Part Name & Description	[#]
	WD-525427		
(1)	491P175030	LENS-FRESNEL	
(2)	491P176060	SCREEN-LENTICULAR	
(11)	623D209010	SCREEN - SHEET - BOTTOM	
	623D224010	SCREEN-FRAME - SPACER	
(3)	623D253020	SCREEN - HOLDER	
(4)	701B525020	SCREEN-FRAME - TOP	
(5)	701B526080	SCREEN-FRAME - SIDE	
(13)	704B238010	FRAME-TRIM - BTM RIGHT	
(12)	704B238020	FRAME-TRIM - BTM LEFT	
(6)	761A232040	SCREEN-FRAME - BOTTOM	
(7)	761A238040	SCREEN-FRAME - COVER-TOP	
(10)	761A252010	BEZEL - FRONT	
(8)	768C082010	SCREEN-CAP-CORNER - LEFT	
(9)	768C082020	SCREEN-CAP-CORNER - RIGHT	
	WD-52528		
(1)	491P175030	LENS-FRESNEL	
(2)	491P176060	SCREEN-LENTICULAR	
(11)	623D209010	SCREEN - SHEET - BOTTOM	
	623D224010	SCREEN-FRAME - SPACER	
(3)	623D253020	SCREEN - HOLDER	
(4)	701B525020	SCREEN-FRAME - TOP	
(5)	701B526070	SCREEN-FRAME - SIDE	
(13)	704B238010	FRAME-TRIM - BTM RIGHT	
(12)	704B238020	FRAME-TRIM - BTM LEFT	
(6)	761A232050	SCREEN-FRAME - BOTTOM	
(7)	761A238050	SCREEN-FRAME - COVER-TOP	
(10)	761A252010	BEZEL - FRONT	
(8)	768C082010	SCREEN-CAP-CORNER - LEFT	
(9)	768C082020	SCREEN-CAP-CORNER - RIGHT	

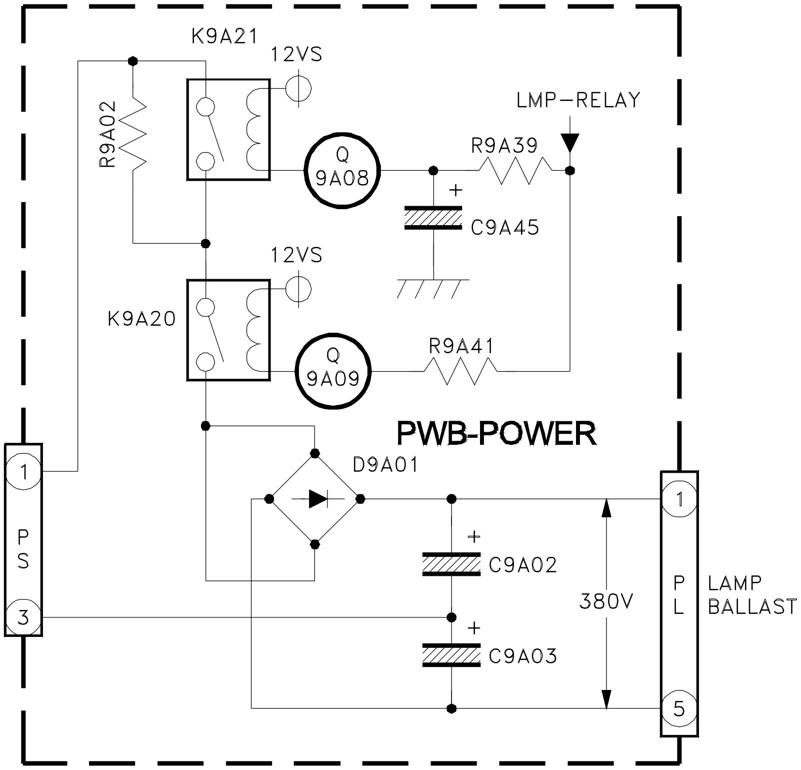
Ref #	Part #	Part Name & Description	[#]
	WD-62527		
(1)	491P175040	LENS-FRESNEL	
(2)	491P176070	SCREEN-LENTICULAR	
	598D683010	SCREEN - BRACKET	
(3)	623D209020	SCREEN - HOLDER	
	623D224010	SCREEN-FRAME - SPACER	
(6)	623D253010	SCREEN - FRAME - BOTTOM	
(4)	701B525010	SCREEN-FRAME - TOP	
(5)	701B526040	SCREEN-FRAME - SIDE	
(15)	704B217010	FRAME-TRIM - BTM RIGHT	
(14)	704B217020	FRAME-TRIM - BTM LEFT	
(6)	761A242040	SCREEN-FRAME - BOTTOM	
(7)	761A244040	SCREEN-FRAME - COVER-TOP	
(10)	761A253010	BEZEL - FRONT	
(8)	768C082010	SCREEN-CAP-CORNER - LEFT	
(9)	768C082020	SCREEN-CAP-CORNER - RIGHT	
	WD-62528		
(1)	491P175040	LENS-FRESNEL	
(2)	491P176070	SCREEN-LENTICULAR	
	598D683010	SCREEN - BRACKET	
(3)	623D209020	SCREEN - HOLDER	
	623D224010	SCREEN-FRAME - SPACER	
(6)	623D253010	SCREEN - FRAME - BOTTOM	
(4)	701B525010	SCREEN-FRAME - TOP	
(5)	701B526060	SCREEN-FRAME - SIDE	
(15)	704B217010	FRAME-TRIM - BTM RIGHT	
(14)	704B217020	FRAME-TRIM - BTM LEFT	
(6)	761A242050	SCREEN-FRAME - BOTTOM	
(7)	761A244050	SCREEN-FRAME - COVER-TOP	
(10)	761A253010	BEZEL - FRONT	
(8)	768C082010	SCREEN-CAP-CORNER - LEFT	
(9)	768C082020	SCREEN-CAP-CORNER - RIGHT	



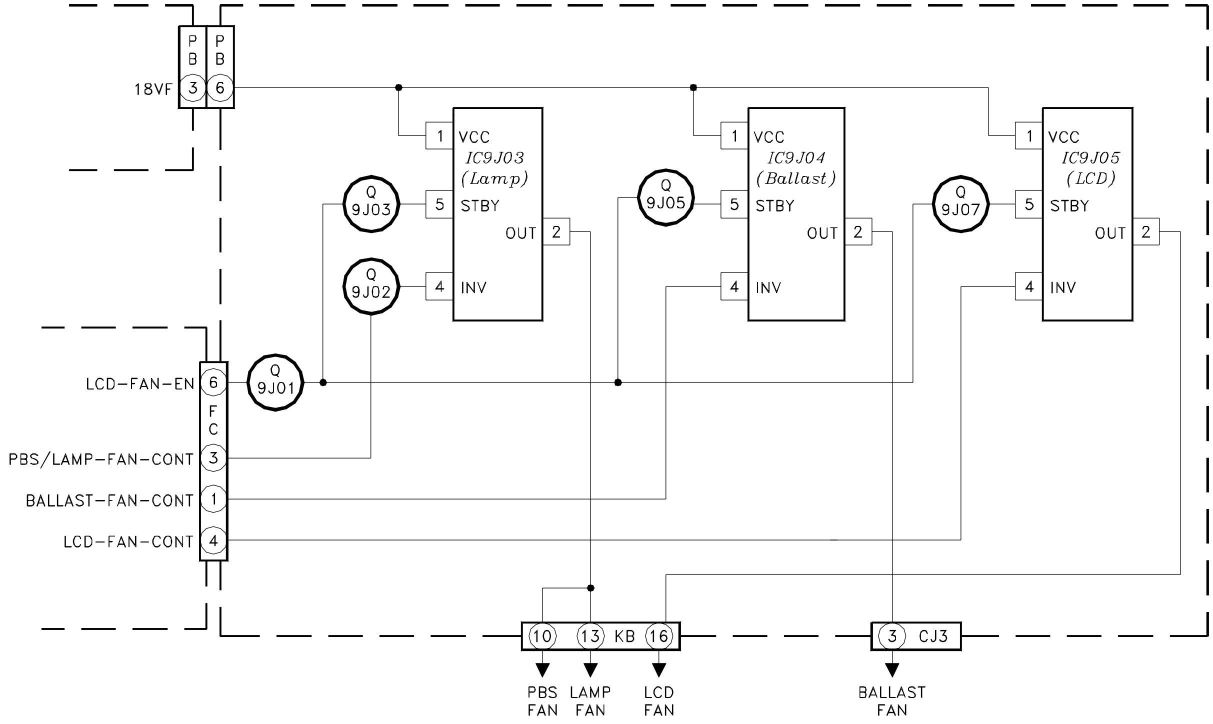
Screen Assembly (Exploded View)


Main Power Supply
RISER
ENGINE
INTERFACE
RISER
18VS
5VS
3.3V
18V
18VF
18V
3.3V
18V-ON
ENGINE PWR-ON
LMP-RLY
+15VS
-15VS
12VS
5VSL
PWR-ON
STBY
MAIN RELAY
PC
PA2
PB
PD
D9A47
D9A43
D9A41
D9A39
18VS
5VS
Q9A12
18VF
12VS
5VSL
3.3V
18V
+15VSA
+15VS
-15VS
-15VSA
SHORT DETECT
SHORT DETECT
STBY
STBY
ENG-PWR-ON
18V-ON
IC9A21
IC9A23
IC9A22
IC9A24
Q9A13
Q9E00
PWR ON
18V
IC9A20 REF
COMMAND PURPOSE
STBY - Activated DC/DC supplies on the DM
ENG-PWR-ON activates 3.3V supply for Engine
18V-ON activates 18V supply for Engine
18VF source for Fans' power supplies.
COLD
MAIN RELAY
Q 9A01
12VS
D9A26
D9A31
D9A32
K9A10
T9A10
PC9A10
PWB-POWER
COMMANDS
MAIN-RELAY from TV µPC IC7A00-69
PWR-ON from TV µPC IC7A00-56
STBY from TV µPC IC7A00-26
ENG-PWR-ON from FMT µPC IC8G01-26
18V-ON from FMT µPC IC8G01-25
LMP-RLY from FMT µPC IC8G01-27
D9A00
R9A01
D9A23
D9A24
D9A20
D9A21
R9A37
R9A21
R9A22
R9A19
HOT
D
VCC
OCP
FB
SOURCE
IC9A10 SMR
PS

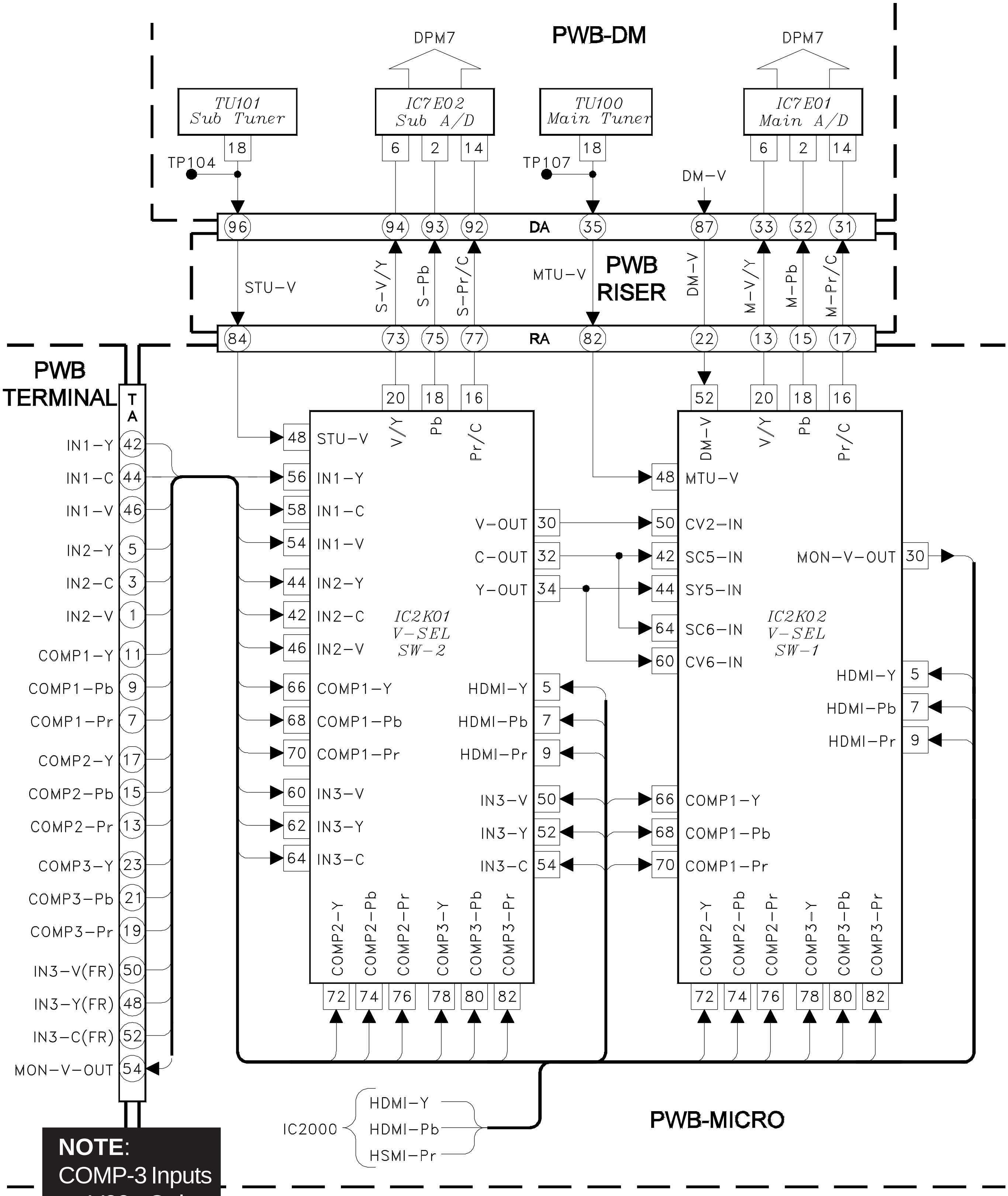
Lamp Ballast DC Supply



Fans Power Supply

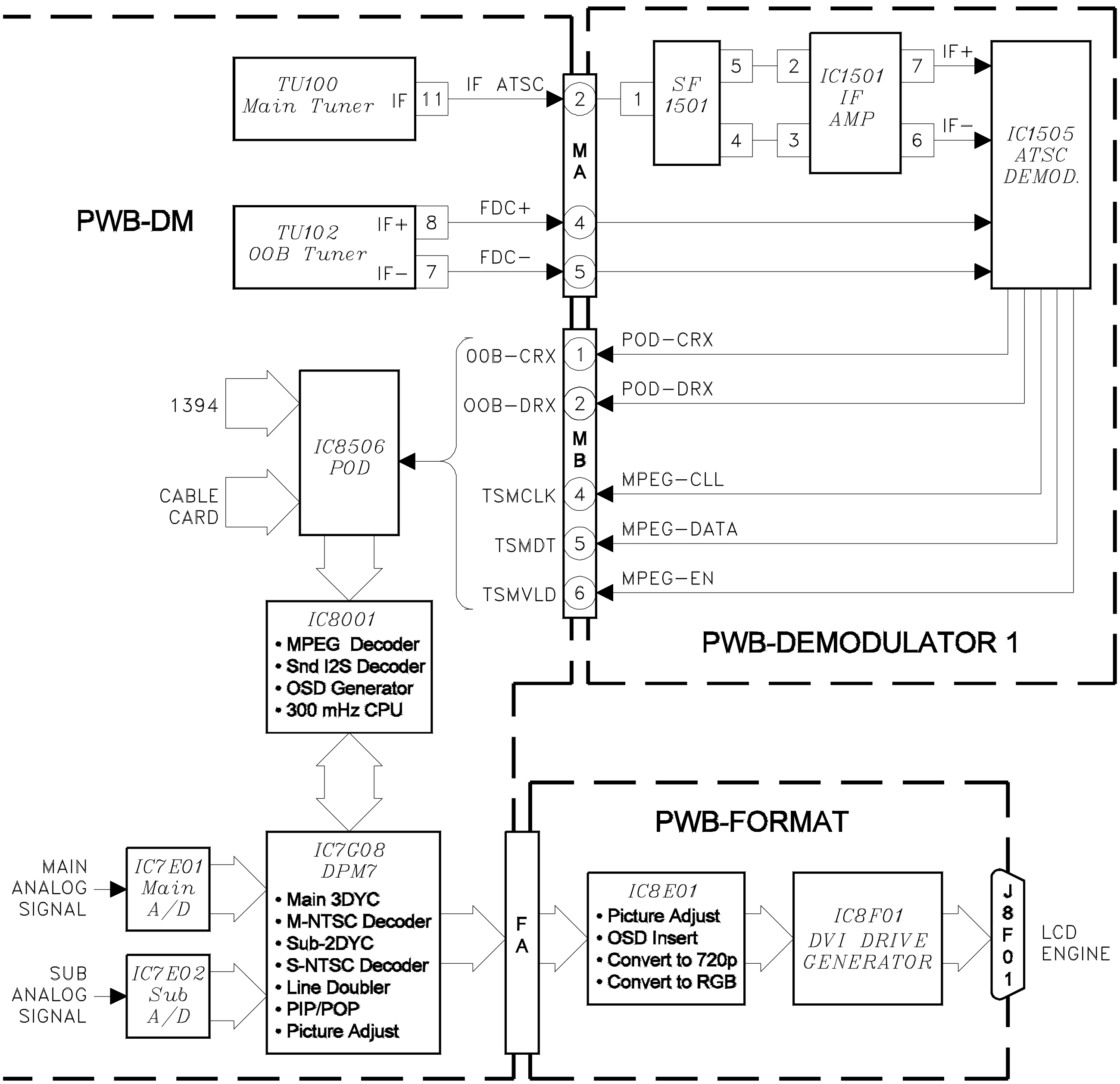


Analog Video Signal Path

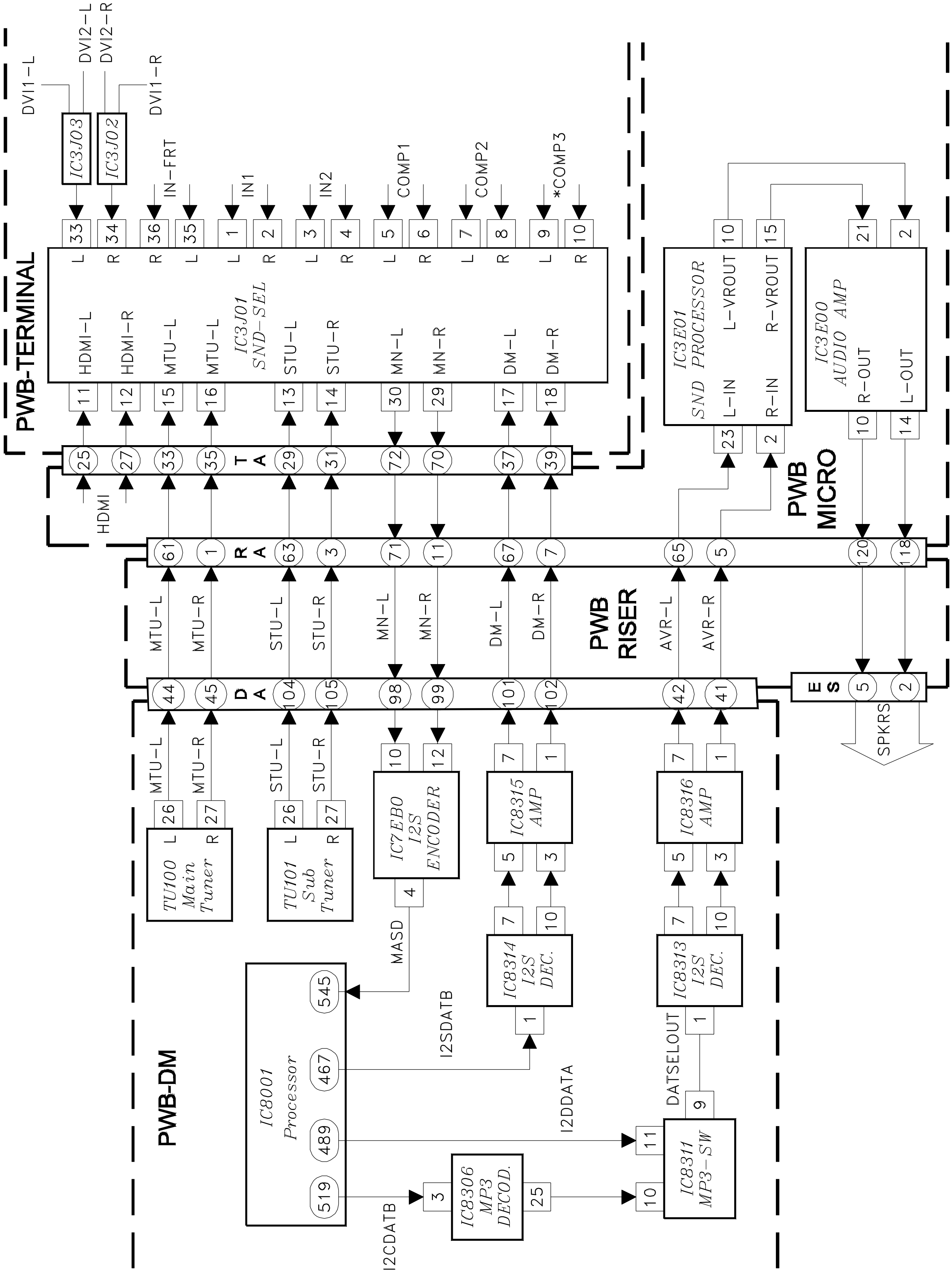


NOTE:
COMP-3 Inputs
on V28+ Only

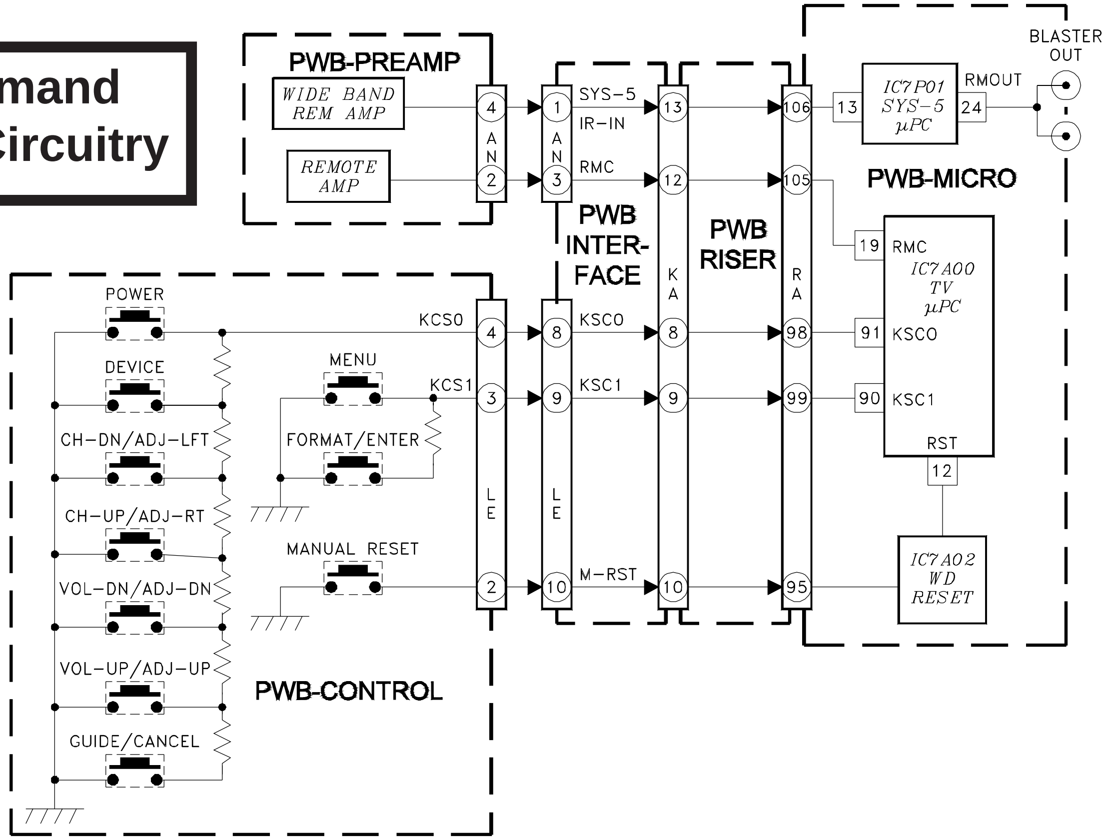
Digital Video Signal Path



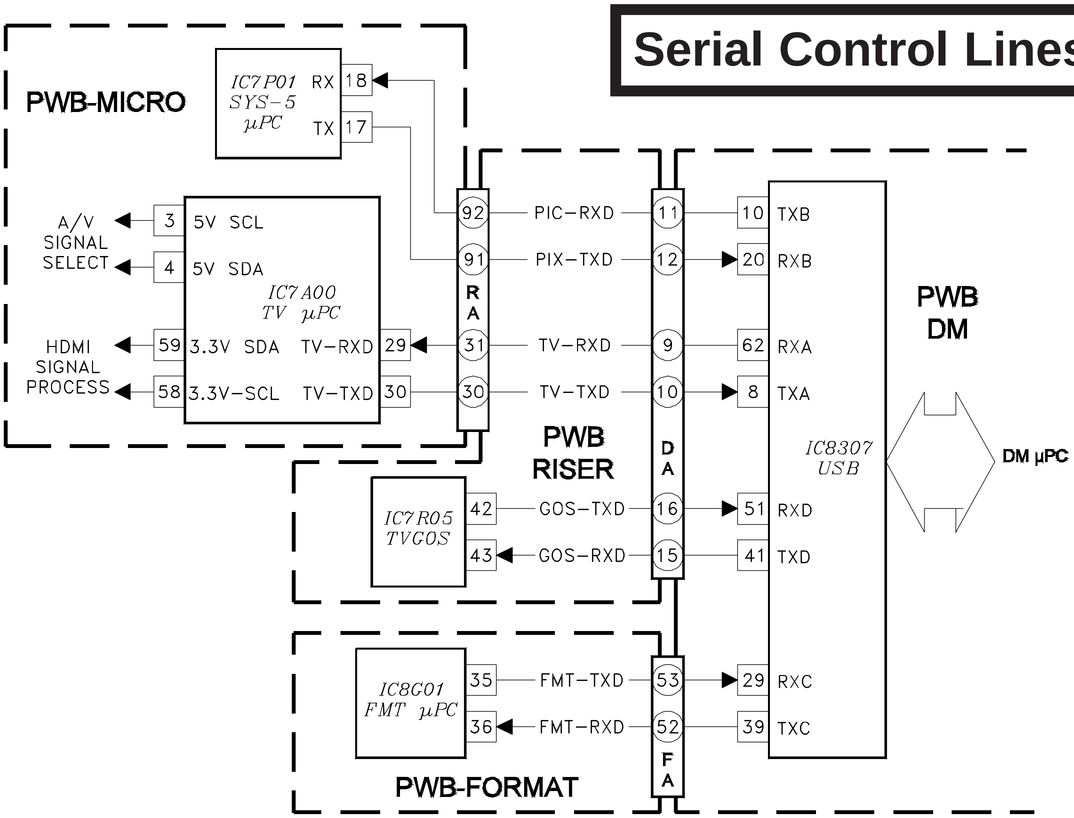
Sound Signal Path



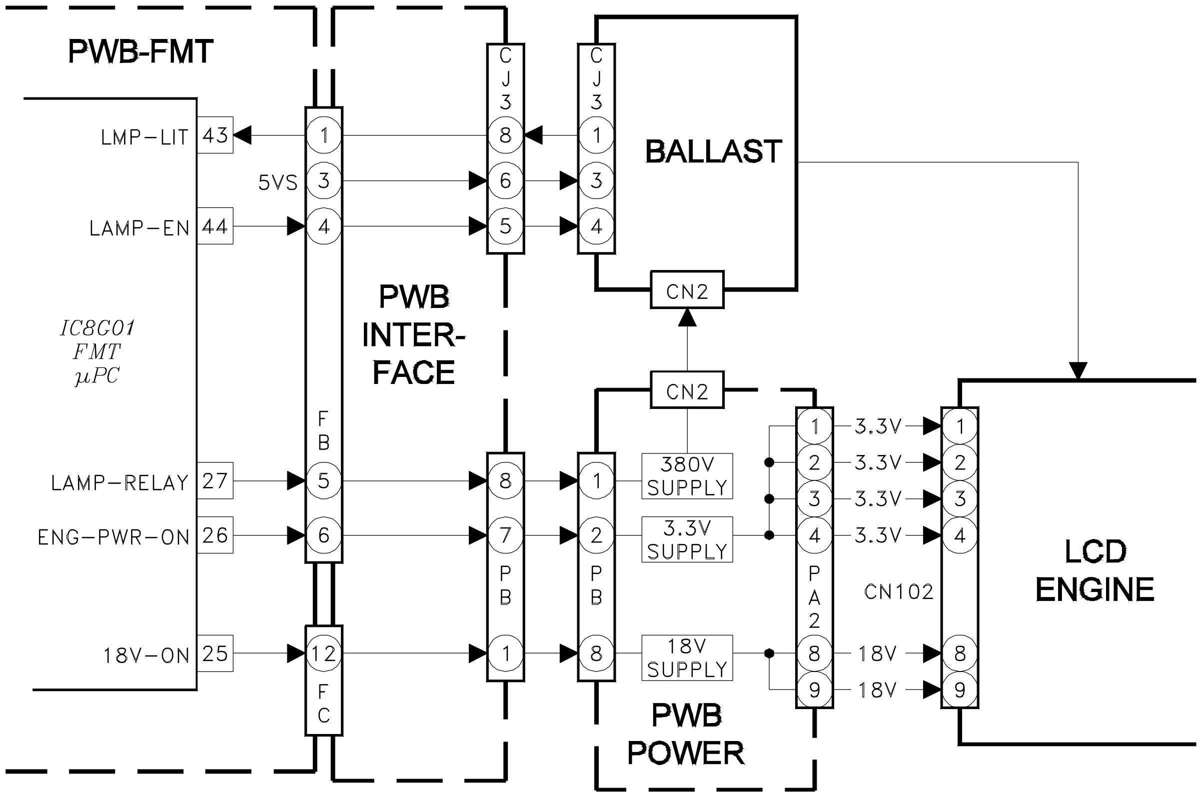
Command Input Circuitry



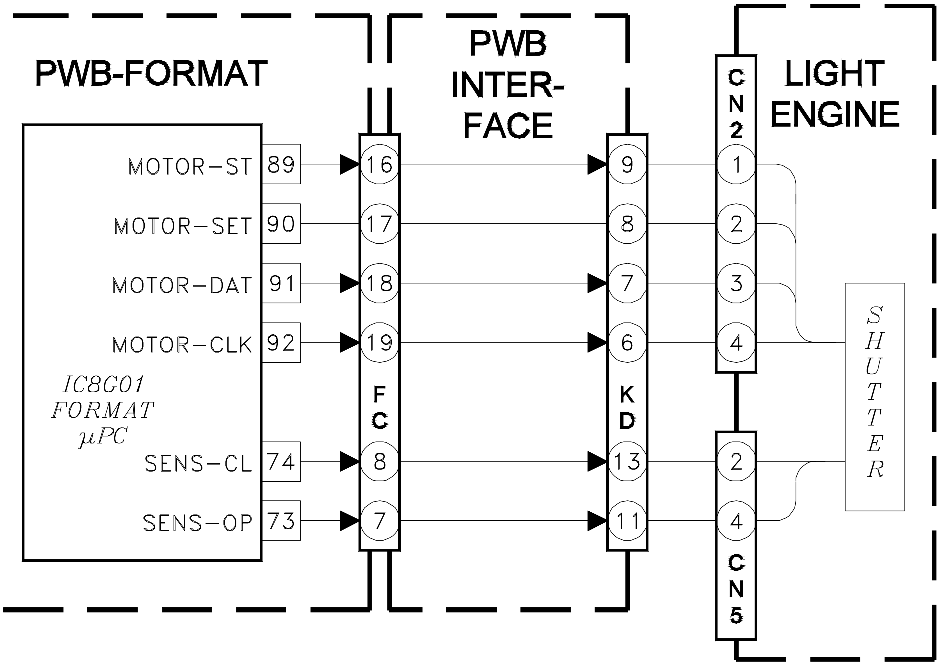
Serial Control Lines



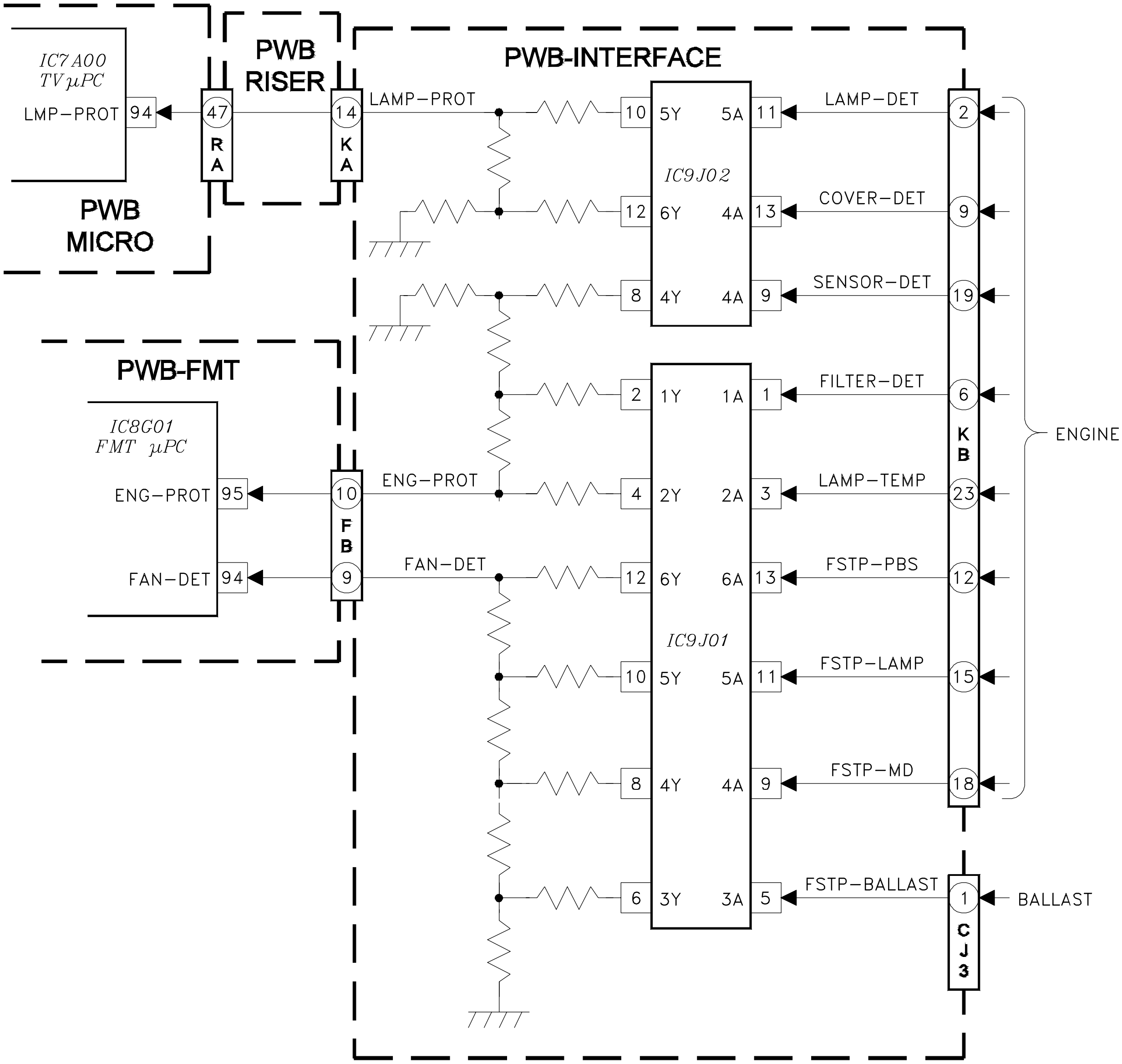
Lamp Control Circuitry



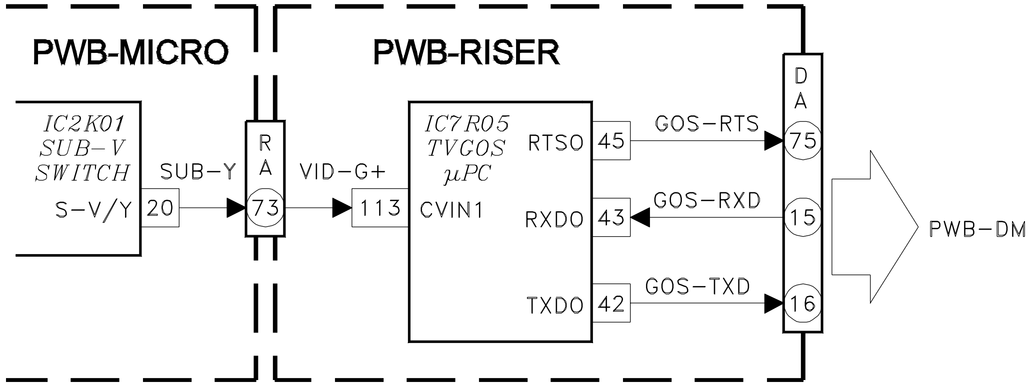
Shutter Control

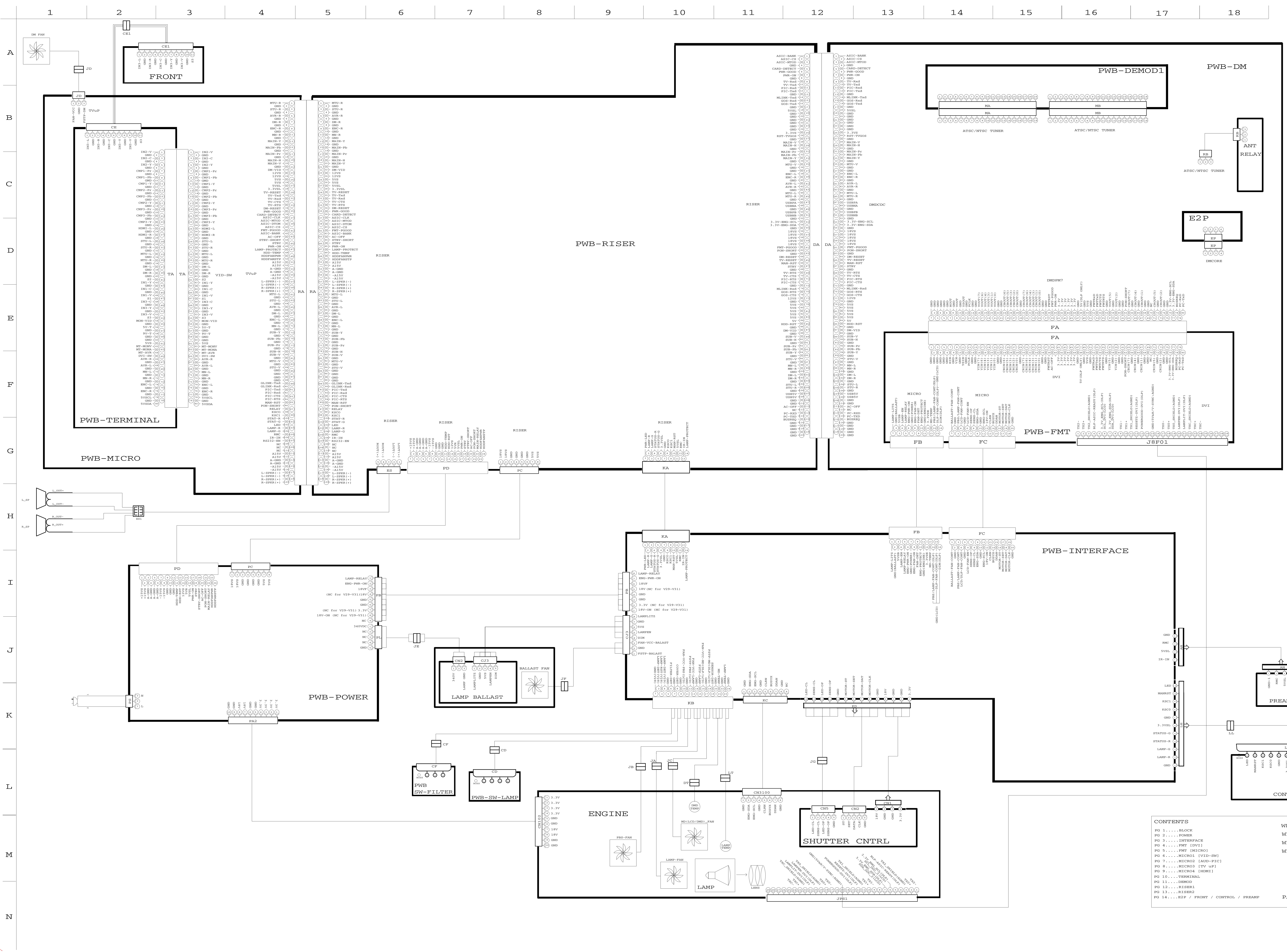


Lamp, Engine & Fan Protect Circuitry



TV Guide On® Screen Block Diagram





* NOTES

1. DC voltages were measured from points indicated to the circuit ground with a high-Z voltmeter
2. Wave form were taken with standard color bar signal.
3. TP13.etc. show test points.
4. CAPACITOR

Value	Not indicated [PF, for numbers more than 1 / uF, for numbers less than 1]		
Dielectric strength	Not indicated : 50V		
Tolerance	Not indicated = +/- 10% [No tolerance is indicated for electrolytic capacitor and +/- 20%] G=+/-2% P=+100% Q=+30% C=+/-0.25PF J=+/-5% -0% -10% D=+/-0.5PF K=+/-10% Z=+80% T=+200% F=+/-1PF M=+/-20% -20% -0% D=+/-2PF		
Type	I	Parts except for chips	Not indicated : Ceramic capacitor MF : Polyester capacitor PP : Polypropylene film capacitor ALM : Aluminus electrolytic capacitor TF : Twin film capacitor SC : Semiconductor Ceramic capacitor MP : Metalized paper MPP : Metalized plastic film capacitor MMF : Metalized polyester capacitor MF, PP : Polyester polypropylene film capacitor PS : Styrol capacitor TAN or TANT : Tantalum capacitor : Electrolytic capacitor NP : Non polarized electrolytic capacitor
	II	chips	Not indicated Ceramic capacitor chip : Electrolytic capacitor NP : Non polarized electrolytic capacitor chip
Characteristic (Only ceramic capacitor)	Not indicated : F or B (high dielrctric percentage) CH, SL, etc. : Temperature compensaing types		

5. RESITOR

Value	Not indicated = Ohm K = 1,000 Ohm M = 1,000,000 Ohm		
Wattage	Parts except for chips	Not indicated = 1/4W or 1/6W	
	Chips	Not indicated = 1/10W	
Toler ance	Not indicated = +/-5% D = +/-0.5% J = +/-5% F = +/-1% K = +/-10%		
Type	I	Parts except for chips	Not indicated : Carbon resistor S : Fixed composition resistor MB : Metal oxide film resistor(Type B) CE : Cemented resistor W : Wire wound resistor M : Metal film resistor MP : Metal plate cement resistor ML : Metal liner resistor
	II	chips	Not indicated : chip resistor

6. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement

SHADED COMPONENTS HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS, READ CAREFULLY THE PRODUCT SAFETY NOTICE IN THE SERVICE MANUAL. DON'T DEGRADE THE SAFETY OF THE RECEIVERS THROUGH IMPROPER SERVICING.

SERVICE TECHNICIAN WARNING;

X-RADIATION PRECAUTION


THIS PRODUCT INCLUES CRITICAL ELECTRICAL AND MECHANICAL PARTS ESSENTIAL FOR X-RADIATION PRORECTION

TO AVOID POSSIBLE TO X-RADIATION TAKE RADIATION PROTECTIVE MEASURE FOR PERSONNEL DURONG SERVICING.

SEE SERVICE INSTRUCTION FOR SPECIFIED REPLACEMENT PARTS AND SERVICE ADJUSTMENTS.

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WD-52527 V28
WD-62527 V28
WD-52528 V28+
WD-62528 V28+



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WD-52528 V28+
WD-62528 V28+

CHASSIS	R9J09	R9J10	R9J11	R9J13	R9J16	R9J41	R9J42	R9J47	R9J48	R9J49	R9J64	R9J66	R9J67	R9J68	R9J69	R9J70
V28			390	360	180	220	220		0			0	0	0	0	
V29	0	0	390	560	390			0		0	0				390	0
V30,V30+,31	0	0	390	560	390			0		0	0				390	0



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WD-62528 V28+



REF DES	T883C446 MODEL/GROUP NUMBERS					
	V28	V28+	V29	V30	V30+	V31
	-01	-02	-05	-07	-06	-08
R7A75	Install	X	Install	X	Install	X
R7C75	X	Install	X	Install	X	Install
R7A76	Install	Install	X	X	Install	Install
R7C76	X	X	Install	Install	X	X
R7A77	Install	Install	Install	Install	X	X
R7C77	X	X	X	X	Install	Install
R8P07	220	470	4.7k	470	220	1k
R8P08	220	220	220	470	470	470

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WD-52528 V28+
WD-62528 V28+



LC FILTERS ARE CNF20C470S/CKD510JB1H470S UNLESS MARKED OTHERWISE.

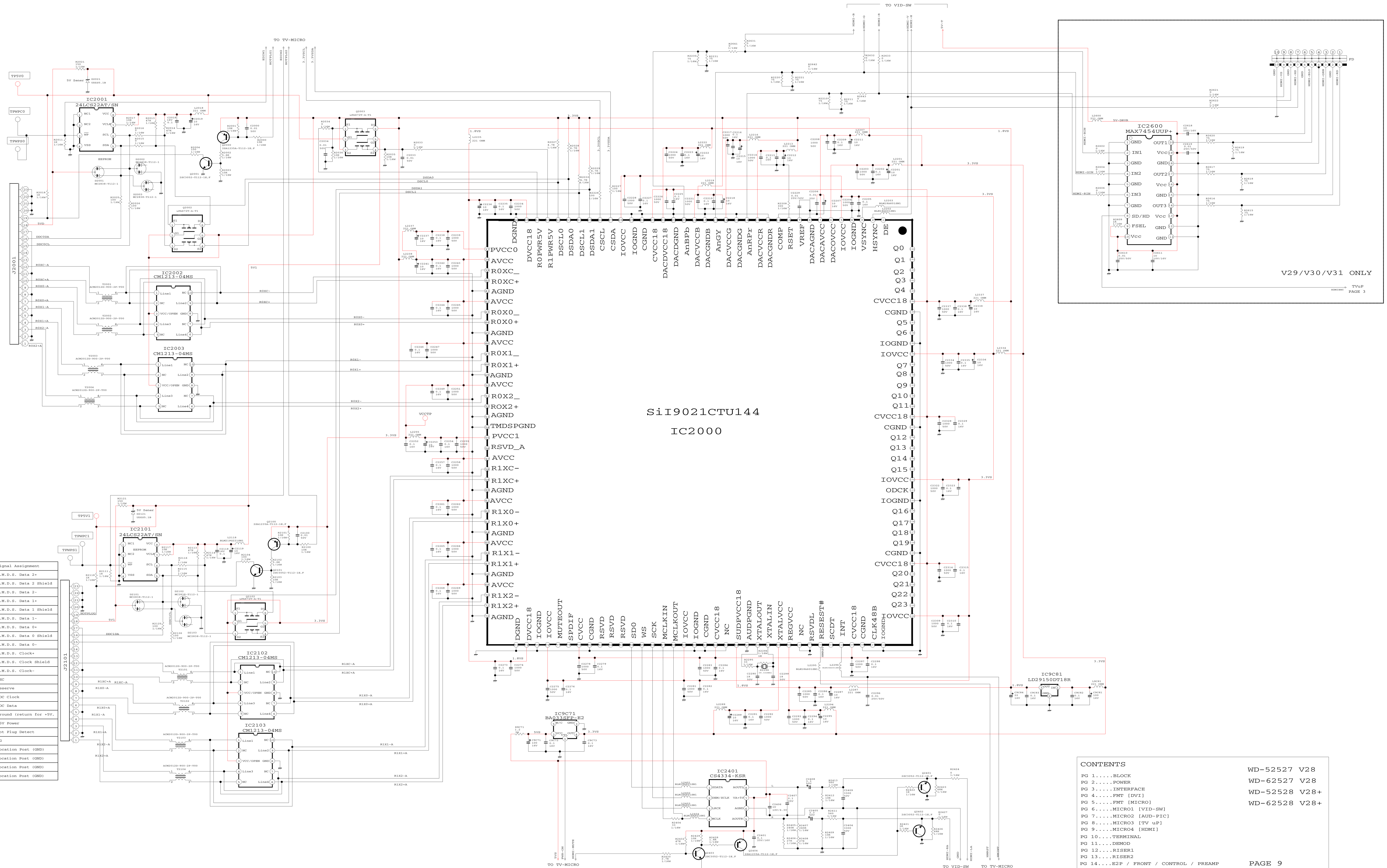
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PIN	Signal Assignment
1	T.M.D.S. Data 2+
2	T.M.D.S. Data 2 Shield
3	T.M.D.S. Data 2-
4	T.M.D.S. Data 1+
5	T.M.D.S. Data 1 Shield
6	T.M.D.S. Data 1-
7	T.M.D.S. Data 0+
8	T.M.D.S. Data 0 Shield
9	T.M.D.S. Data 0-
10	T.M.D.S. Clock+
11	T.M.D.S. Clock Shield
12	T.M.D.S. Clock-
13	CEC
14	Reserve
15	DDC Clock
16	DDC Data
17	Ground (return for +5V,
18	+5V Power
19	Hot Plug Detect
Shell	FG
(20)	Location Post (GND)
(21)	Location Post (GND)
(22)	Location Post (GND)
(23)	Location Post (GND)


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WD-62528 V28+




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PIN DESCRIPTION	
NO Connection	1
RXD (Receive Data)	2
TXD (Transmit Data)	3
No Connection	4
GND	5
No Connection	6
RTS	7
CTS	8
No Connection	9

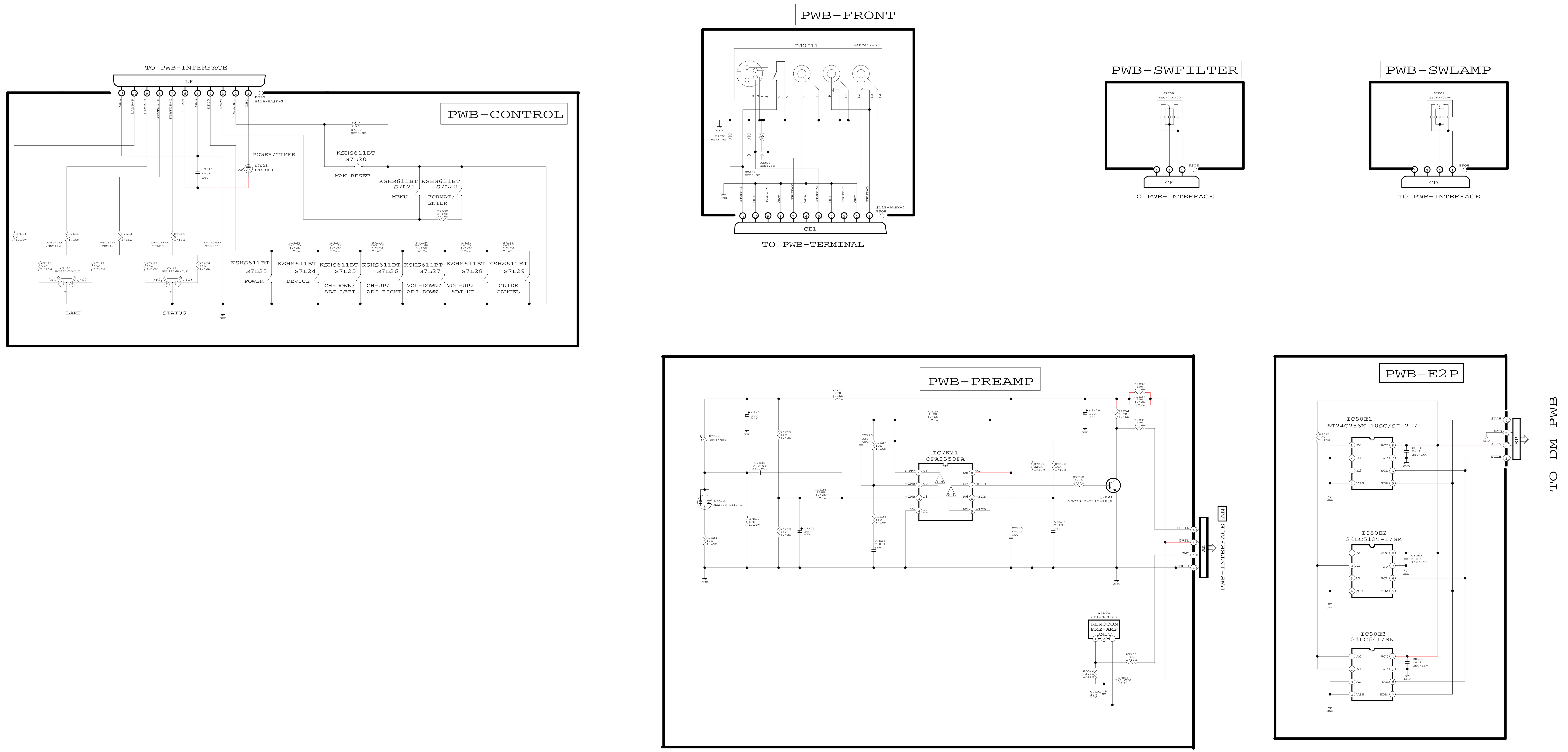
CONTENTS

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WD-62527 V28
WD-52528 V28+
WD-62528 V28+



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WD-62528 V28+